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INSIDE DOPE

Learn to live and laugh—
Thus delay your epitaph

By GEORGE F. TAUBENECK

Last-Gasp Baseball
Are You Watching the World Series?
They're Not That Strong Any More
Incidental Baseball Philosophy
Maybe He's Another Dayton Genius

Last-Gasp Baseball

For quite awhile "Hoot" Evers was this scribe's favorite baseball player. Unreasonable reasons:

(1) He athleticked (baseball and basketball) for the University of Illinois—our Alma Mater.

(2) He was the "clutch" hitter for the Detroit Tigers in 1950—when he was The Hero to everybody in Our Town.

(3) In a tense moment, when a rare silence enclamped Briggs Stadium, the writer's young son yelled: "Hit a homer, Hoot." Evers did, and won the game thereby. Afterward he presented son Greg with an autographed baseball.

"Hoot," however, is a silent man.

Here's the sole story we could pry out of him:

When he was outfielding for Winston-Salem, the Charlotte (N. C.) Hornets were bolstered by Bob Ortiz, who slugged later for Washington. Ortiz was doubly popular because his pet mongrel dog followed him everywhere.

As reticent "Hoot" recites it, Ortiz slapped a long fly in the ninth inning. It bounced against the centerfield wall. Evers fielded the ball cleanly, and fired toward third base.

"Ortiz would have been out by a yard," Evers recalls, "but his dog leapt at the third-baseman's throat, the latter dropped the ball, and Ortiz was waved home.

"Next morning we read in the *Charlotte News* the box-score. Tenth in the batting order was: Small Dog."

Are You Watching the World Series?

Sixty years ago Walter Hapgood, a sports writer and promoter from Worcester, Mass., was tipped off about a French-Canadian who was a gee-whizzer of an inflelder, and a great hitter. His regular job was meeting all trains as a hack-driver.

Hapgood wired him an offer of $5 to play one game for Worcester.

"I didn't know whether I would hear from him or not," recalls Hapgood. "Imagine my surprise one morning to see a tall, dark, and handsome young fellow in a long green coat with brass buttons, high hat, and carrying a whip. Those were the days when editors of any description were sitting ducks for horse-whippings.

"I didn't know whether I was in for a ride or horse-whipping. Then he told me that, in addition to the five-spot, he wanted his carfare to and from Woonsocket.

"Truthfully, in all my years of covering baseball and dealing per-

(Concluded on Page 4, Col. 4)

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AIR CONDITIONING & REFRIGERATION News

THE NEWSPAPER OF THE INDUSTRY

October 4, 1954

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Should They Sell Freezers?

Locker Operators Ponder Their Role In Freezer-Food Plan Operation at Meeting

ST. LOUIS — Locker operators convening here recently took a long second look at freezer-food plans and wondered out loud whether or not this might be a good profitable business for them.

Most of the answers given by men with experience in food plan selling were in the affirmative, but there was a great difference of opinion as to what the role of the locker operator should be and how a freezer food plan should be sold.

Two questions seemed uppermost in the minds of locker operators attending a luncheon discussion of freezer-food plan merchandising during the 15th annual convention of the National Frozen Food Locker Institute here.

Put into words by one operator in the audience, the first was: "How long will it take to overcome the evil effects of food plan racketeers after the racketeers have left town?"

The second was: "Does the locker operator have to sell freezers to make a profit and can he profitably sell the food only and let the appliance dealers sell the freezers?"

The answer to the first question was given by Bob Kline, operator of a string of locker plants in the Sunbury, Pa. area.

"After the racketeer leaves town," he advised, "follow up on his customers immediately. Tell them you would like to take over the servicing of their freezer and explain the services you offer. And at the same time, try to resell them on the freezer-food plan and explain how a properly organized one operates. After you get the false ideas out of their heads, you can convert them into customers quickly."

The answer to the second question was more difficult and opposing opinions were expressed. Most of the experts said that the profit was in selling the freezers and an operator was not in the freezer-food plan business unless he sold the freezer as well as the food.

Robert Stratman of Geneseo, Kan., propounded the theory that the profit in freezer-food plan selling is in the freezer and not in the food. (Marcus Lawson, a Rich

(Concluded on Back Page, Col. 1)

Offer Frozen Food Plan to Apartment House Dwellers

By George M. Hanning

ST. LOUIS — A new type of frozen food plan aimed at the millions of apartment house dwellers in American cities was introduced to locker plant operators attending the National Frozen Food Locker Institute convention here recently.

Appeal of the plan is that it costs the apartment house dweller nothing except the price of the food he eats, it gives the apartment house manager an additional rental feature at no cost to himself, and it provides the means of increased profits to locker operators.

Convenience is the dominant feature as foods are sold to the consumer at full retail prices.

The new plan is the brainchild of John Rich, who founded the Rich food plan that swept the country a few years ago, and has been quietly tested for the past 10 months in Portland, Ore.

Rich, who has had no connection with the Rich food plan for a long time, is president of National Self Service, Inc., which has patented the plan and intends to operate it nationally.

Frank Dunn, vice president of the company, explained to locker operators here that the plan is based on the new Westinghouse commercial frozen food storage cabinet, for which his company is exclusive national distributor. Before taking his present job, Dunn

(Concluded on Page 6, Col. 1)

Unger Gains Control of Ace, Plans New Expansion

NEW YORK CITY—Alex Unger, president of Ace Cabinet Corp., has announced the purchase of all remaining common stock, giving him complete control of the corporation.

It was also announced that Edward Stern has been appointed executive vice president in charge of sales and will be directly in charge of the New York office at 1457 Broadway.

At the same time, company officials disclosed that a new line of self-defrosting ice cream and frozen food cabinets in 5-ft. and 7-ft. sizes will be introduced, that the Ace line has been completely

(Concluded on Page 4, Col. 2)

Norge Sales for September Triple Same '53 Period

DALLAS—Norge sales for September have been about triple those of a year ago, and Norge dollar volume for the first nine months will be about 77% ahead of the same period in 1953, Judson S. Sayre, Norge president and general manager, declared in speaking before an appliance dealers group here.

Sales of all Norge appliances are running ahead of last year, Sayre said, declaring that gross sales for the year may hit $75 million.

Marshall Field Offers Free Delivery of Frozen Foods

CHICAGO—A new frozen food delivery service is being offered by Marshall Field & Co. to customers in the department store's free delivery area with a minimum order of $10.

Announced in a newspaper advertisement, the service is being promoted by a sampling of Field's specialties. A selection of more than 200 foods sold in the "Pantry" includes pies, soups, fruits, vegetables, meats, etc.

...trols ...nts to 'Tyni Switch'

DETROIT—C. H. Hodges, Jr., president of Detroit Controls Corp., and William K. Sessions, president of The Sessions Clock Co., Forestville, Conn., have announced the purchase by Detroit Controls of the sales and manufacturing rights of the "Tyni Switch" previously manufactured and sold by Sessions Clock.

The Tyni Switch will be manufactured by Detroit Controls, and the Detroit firm will carry on the future development and sale of the switch. Present customers are assured that production will be continued without interruption while facilities are being set up in Bridgeport, Conn., the company said.

(Concluded on Page 4, Col. 3)

Tecumseh Producing New Compressor Model

TECUMSEH, Mich. — The new model VFT 4-cylinder open-type compressor now being introduced by Tecumseh Products Co. is marked by an innovation in design in that "oil separation" is built into the compressor, declare Tecumseh engineers.

This new compressor, which will be available for 2-hp. and 3-hp. condensing units, is said to be particularly suited to low temperature (below zero) applications, since the oil stays in the crank-

(Concluded on Page 17, Col. 1)

Super-Cold Stockholders Vote for Liquidation

LOS ANGELES — Stockholders of Super-Cold Corp., manufacturer of commercial refrigerators here, have voted to liquidate the company, upon recommendation of the board of directors. Method of liquidation will be discussed at a forthcoming board meeting.

Super-Cold has two Los Angeles plants totaling about 400,000 sq. ft. of space. On sales of $4,185,021 in 1953 it showed a net loss of $40,305.

F. R. Waingrow, executive vice president and general manager, is reported as stating that the firm is not in any financial distress and that first half results will show a profit. Total common shares outstanding number 608,000.

'Freon-22' Price Is Cut Nickel a Pound

WILMINGTON, Del.—A second reduction within the year in the price of "Freon-22" has been announced by the Du Pont Co.

The new price is $.051 (five and one-tenth cents) per pound below the last price adjustment of Sept. 28, 1953.

The company said the new price reduction was made possible by more efficient operation and increasing volume. A new "Freon-22" unit went into operation at Deepwater Point, N. J. early this year, while another is now under construction at Louisville, Ky.

Room Unit Cost May Jump In '55, Makers Say

Point to Ordinances, Other Factors Piling on Costs; May Try Joint Promotion

NEW YORK CITY—The cost of room air conditioners "will not be less next year" in the opinion of members of the Room Air Conditioner Section of the Air-Conditioning and Refrigeration Institute, meeting here recently. More than 40 manufacturers were represented.

A spokesman for the ARI Section said that "due to cool weather room air conditioners have been offered at close out prices in some sections of the country, but manufacturers attending the meeting indicated that this was purely a seasonal price fluctuation and emphatically stated that requirements of national codes and local ordinances will no doubt require additional manufacturing and component costs, thus making a price rise in room air conditioners more likely in 1955 than price decreases.

A separate meeting of sales and advertising executives of room air conditioners was also held under the sponsorship of ARI, for the purported purpose of working out a joint promotion approach to the sale of room air conditioners, stressing particularly the year-round functions of such equipment, and looking forward to an effort to lengthen the selling season.

Distributor Assn. Asks B.t.u. Room Unit Ratings

NEW YORK CITY — A recommendation that manufacturers use B.t.u. capacity rather than tonnage in promoting window-type room air conditioners reportedly has been made by the air conditioning committee of the National Association of Electrical Distributors.

Consumers are more familiar with B.t.u. terminology because of their experience with heating equipment and thus they would more readily understand reference to B.t.u. than to tonnage, it was pointed out.

Manufacturer representatives attending a recent meeting of the committee agreed that some improved form of rating is necessary, it was said.

RCA Avoids Comment on 'White Goods' Expansion

CHICAGO — Radio Corp. of America has "no announcement to make at the present time as to whether we are going further ahead or not" in the white goods field, according to Frank M. Folsom, president.

Answering questions at a recent meeting of the Investment Analysts Society of Chicago, he

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XUM

Boyd Neuhart Heads Mid-West RSES Group

WICHITA, Kan.—Boyd Neuhart was elected president of the Mid-West Association of the Refrigeration Service Engineers Society during the group's educational conference held here Sept. 23 to 25.

Other officers chosen to serve for the coming year are E. W. Muck, vice president; Cecil Visger, secretary; Robert Cain, treasurer; Bill Most, sergeant-at-arms; and Wallace Dugan, educational director.

The nearly 300 members and guests attending the three-day session heard a variety of educational talks covering many phases of refrigeration and air conditioning installation and service.

(Detailed accounts of the talks will appear in future issues of AIR CONDITIONING & REFRIGERATION NEWS.)

Topics discussed included industry relations, automobile air conditioning, servicing hermetic units, solenoid valves, moisture problems, truck refrigeration, air-cooled condensers, diagnosing service problems, sizing of cooling towers and water pumps, water treatment, automatic defrost timers, suction pressure regulators, a comparison of "Freon-12" with "Freon-22," production of copper tubing and fittings, and installation and servicing of window air conditioners.

Latter presentation by Ray Thompson, general service manager of O. A. Sutton Corp., was dramatized by an excellent skit showing how *not* to install a unit staged by Roy Garrison and J. B. Jones, also a member of the Sutton company.

Ultra-Modern Apt. Bldg. Gets Year-Round System

WASHINGTON, D. C. — Complete year-round air conditioning is one of the important features of the ultra-modern 4200 Cathedral Ave. apartment building.

The building is equipped with Carrier Corp.'s "Conduit Weathermaster System." An individual control on each unit will permit apartment occupants to vary the temperature according to their own requirements.

A single Carrier centrifugal refrigerating machine will handle the cooling and dehumidifying requirements for the entire building. A total of 365 tons of refrigerating capacity will be supplied via chilled water lines to central air conditioning apparatus and to 542 Weathermaster room units furred into the wall underneath the windows.

The system also supplies complete heating and humidification when needed, plus year-round controlled air circulation and ventilation.

Architect for the new structure is Edwin Weihe, A.I.A.

Frigidaire Commercial, Air Conditioning Meeting Unfolds Plans for 1955

DAYTON—A new dealer organizational program, and plans for increased sales activities and a broad advertising program were unfolded at a recent 3-day commercial refrigeration and air conditioning meeting of Frigidaire top executives from 42 branch and distributor sales offices across the nation.

The meetings were held primarily for the purpose of discussing the plans and materials with which the factory and district offices will assist dealers in their future over-all selling efforts, declared W. F. Switzer, Frigidaire commercial refrigeration and air conditioning sales manager.

In 1955, Frigidaire will sponsor the largest direct mail advertising campaign in the company's history, it was reported, with mailing scheduled throughout the entire year. In addition, new advertising campaigns have been designed to reach all key product markets.

Sales training programs and service schools will be held throughout the coming months to provide the dealers, salesmen, and servicemen with the "know-how" for building stronger dealerships.

Extensive promotional plans and materials designed to increase sales incentive and build customer acceptance will be provided.

Move Up

C. R. Black

P. L. Craft

E. A. Fairchild

R. S. Thompson

Mueller Brass Announces Promotions for Five In Sales Department

PORT HURON, Mich. — A. C. Dappert, general sales manager of the Mueller Brass Co., has announced five promotions in the company's sales department.

Robert L. Gibbs

The five are Robert L. Gibbs, Elbert A. Fairchild, Paul L. Craft, Charles R. Black, and Richard S. Thompson.

Gibbs, who formerly headed the company's wholesale distributing division, has been made assistant general sales manager.

Fairchild, former manager of the sales promotion department, has been named as assistant to the general sales manager.

Craft, who was assistant sales manager in the company's industrial division, now becomes manager of that department.

Black, the former assistant manager of the wholesale distributing division, assumes the post of manager of that division while Thompson, who was assistant in the government contracts department, takes over as assistant to Black in the wholesale distributing division.

Dappert also announced the resignation of Elgin F. Parker, manager of the industrial division since 1940. Parker has become vice president of a west coast distributing firm, Bralco Metals of Los Angeles.

Frozen Meat Plan Will Give Supermarket Service To Small-Town Stores

GREEN BAY, Wis.—A "unique" frozen meat merchandising plan designed to provide supermarket service to small-town stores which can't afford large meat departments is being tested by the eastern division of Red Owl stores.

Under the plan, a complete line of trimmed, boxed, and fresh frozen retail meat cuts is being offered in a Red Owl unit in Pulaski, a Wisconsin community of some 500 persons located 18 miles from the Green Bay warehouse.

After being prepared at the warehouse, the cuts are wrapped in paper and packed in blue-trimmed white boxes. The boxes are then stamped to show the name of the item, its weight, price per pound, and selling price. If a box contains more than one piece, the number of pieces is indicated.

Next, the cuts are quick-frozen. Boxes are packed in large insulated containers sandwiched with dry ice to keep the meat frozen. They are then shipped out in refrigerated trucks. Prices are the same as at the retail fresh meat counter, no charge being made for packaging and freezing.

Listing advantages of the plan, Jack Wotrang, Green Bay district manager, pointed out that meat can be cut and frozen at the plant at peak of flavor and freshness.

It is believed the plan will be particularly convenient for rural customers who may not return home for several hours, in which case fresh meat might deteriorate in hot weather.

Only the best grades of meat are used, according to Wotrang. He said any customer not satisfied with the meat can get a refund.

...the *simple, correct* way to

DEFROST AUTOMATICALLY

T-P . . . Time-Pressure defrosting . . . is the easy, economical fool-proof way to defrost coils in display cases, reach-in boxes and other refrigeration equipment maintaining temperatures from 24° to 35° F. and higher. Here's what it does . . .

It *automatically and correctly varies* the defrost period as required . . . eliminates annoying problem of determining length of shut-down time for proper defrosting under varying load and weather conditions. T-P *avoids unnecessary* shut-down time by stopping compressor *only long enough to defrost*...and does it automatically!

Learn more about the PENN Series 325 Time-Pressure Defrost Control. It's easy to sell. Ask your wholesaler or write **Penn Controls, Inc., Goshen, Indiana.** Export Division: 13 E. 40th Street, New York 16, N.Y., U.S.A. In Canada: Penn Controls Limited, Toronto, Ontario.

Interior of Type 325. Timer can be set for one to six "off periods" every 24 hours. Length of "off period" varies automatically with frost condition on the coil.

PENN AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, GAS APPLIANCES, PUMPS, AIR COMPRESSORS, ENGINES

NOLIN

Leads the Field

New

Dry Beverage Cooler

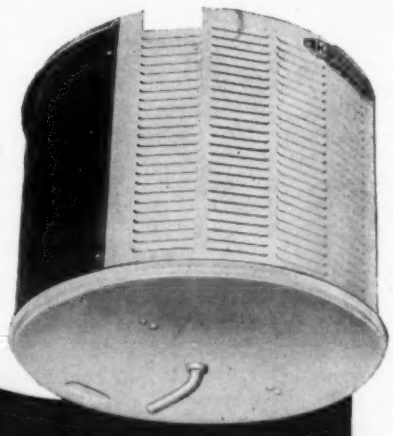
- LEADS IN CAPACITY
- LEADS IN QUALITY
- LEADS IN PERFORMANCE
- LOWEST IN PRICE

NOLIN MANUFACTURING COMPANY
1400 LLOYD ST. PH. LD 57
MONTGOMERY, ALABAMA

KRAMER

BIRD CAGE

750 to 1,200 BTU/HR



Ideal for the BAIN MARIE. It performs perfectly the double duty of keeping both the salad pans and storage space properly refrigerated.

WRITE FOR BULLETIN NO. 265

KRAMER TRENTON CO. • Trenton 5, N.J.

XUM

ANNOUNCING THE NEW 1955 KELVINATOR

The only automatic washer that is truly two complete automatic washers in one!

FIRST with scientifically designed wash cycle for new synthetic fabrics, silks, woolens and small loads of regular washes. This "Fine Fabrics" cycle uses ½ the total water, ½ the hot water, ½ the soap . . . takes ½ the time, only 17 minutes.

FIRST with "Tel-a-Fabric" signal lights. Tells instantly which wash cycle is in operation . . . whether hot or warm water is being used. Light flashes off when washing is done.

FIRST with full width fluorescent light. Provides illumination for sorting wash by fabric and color. Now Kelvinator gives the user the light needed when washer is placed in dimly lit basement or utility room.

FIRST with safety self-closing lid. Move it down ⅓ the way . . . and it slowly, gently closes itself. No chance of children . . . or housewives . . . injuring fingers, hands or tearing clothes should lid unexpectedly be dropped.

Sales Story to Prospect is Powerful—Makes closing easier, faster—Gives effective tool to combat "better deals" offered by neighboring competitors on other brands.

EVERY woman knows today's man-made synthetic fabrics are weakest when wet. That's why many women wash these fabrics by hand. They don't trust them to the automatic washer they have known in the past. Now you can offer them the new Kelvinator—the automatic washer scientifically designed to give *completely safe, completely automatic* washing of these fine and fragile fabrics—for small loads—as well as an automatic cycle for her regular wash. So, here is the first automatic washer that is truly two complete automatic washers in one!

Here's news! And here's easy selling, with features every woman can understand! Four great "firsts." Every one a Kelvinator exclusive. Every one a demonstration feature. Every one a selling feature. Plus—all the exclusive features that have made the Kelvinator unmatched for washability—"Shampoo Washing", "X-Centric Agitation", "Overflow Rinsing"!

Here's the most powerful washer sales story ever offered!

Only Kelvinator brings it to you. See the new Kelvinator! Order it! Display it! Demonstrate it! See *how easily* you sell it!

Sell Kelvinator *Division of American Motors Corporation, Detroit 32, Michigan*

DON'T SELL ½ AN AUTOMATIC WASHER! SELL THE ONLY WASHER THAT'S TWO AUTOMATIC WASHERS IN ONE!

ELECTRIC REFRIGERATORS • ELECTRIC RANGES • HOME FREEZERS • WATER HEATERS • KITCHEN CABINETS AND SINKS • WASHERS • DRYERS
IRONERS • GARBAGE DISPOSERS • WATER COOLERS • ROOM AIR CONDITIONERS • DEHUMIDIFIERS • COMMERCIAL REFRIGERATION

FOR REFRIGERATION AND AIR CONDITIONING EQUIPMENT...

SPECIFY

READING QUALITY COPPER TUBING

READING COPPER TUBE

READING TUBE CORPORATION

EMPIRE STATE BUILDING
NEW YORK 1, N. Y.
WORKS: READING, PA.

Unger Controls Ace--

(Concluded from Page 1, Col. 3)

redesigned, and that a stepped-up advertising and sales promotion program will be instituted in the coming months.

Unger has been associated with the refrigeration industry for more than a quarter of a century and was instrumental in Ace Cabinet's position as a pioneer in manufacturing low temperature equipment.

Stern was manager of the corporation's plant in New Bedford, Mass. from 1944 to 1949. Since then he has been in charge of New England sales.

The new self-defrosting ice cream and frozen food cabinets will be introduced following three years of design and test activities, it was stated. Simplicity of design of the cabinets, the company said, will allow equal pricing with comparable cabinets which are not self-defrosting.

The New Bedford plant will be entirely given over to the manufacture of the new line. First showing of the line will be at the Dairy show in Atlantic City.

Ace Cabinet also reported that it has completed contracts with the Army Air Force for blood plasma cabinets.

The redesigned Ace line now includes high temperature wall cases, self-defrosting low temperature cabinets, ice cream cabinets, soda fountains, truck hold-over equipment, upright home freezers, and frozen food storage cabinets. The company termed its line one of the most complete in the industry.

Campbell To Head Trion's Special Projects Div.

McKEES ROCKS, Pa. — Luther C. Campbell, Jr. has been appointed manager, Special Projects Div., for Trion, Inc., designer and manufacturer of electronic air cleaning equipment.

Campbell is a graduate of the United States Military Academy and has his masters degree from Syracuse university. Before coming with Trion he was an instructor at West Point.

His duties will consist of development of special projects in which Trion air cleaner equipment will be used, particularly by the Department of Defense.

'Tyni Switch'--

(Concluded from Page 1, Col. 4)

Sessions Clock is a leading manufacturer of clocks, switch timers, miniature industrial motors, and clock movements.

Detroit Controls is a division of American Radiator & Standard Sanitary Corp. and is a well known manufacturer of automatic controls for heating, air conditioning, refrigeration, diesel engines, aircraft, and the industrial field.

INSIDE DOPE

Learn to live and laugh—
Thus delay your epitaph

By GEORGE F. TAUBENECK

(Concluded from Page 1, Col. 1)

sonally with ball players, I never saw a better-looking player in uniform. His performance that day was even better than his looks. He belted the ball all over the Holy Cross campus, where the game was played. I never saw such hitting before or since."

P.S.: He was Napoleon Lajoie.

They're Not That Strong Anymore

Another of baseball's wacky characters who could drink all night and play a tremendous game next day was "Rabbit" Maranville.

In addition, he was one of the two or three most durable gamesters in baseball history. Was a great competitor for more than two decades, and wound up in Baseball's Hall of Fame.

Even as manager of the Cubs he didn't change his spots. Having just left one of them, he roared into his team's Pullman, obtained three pitchers of ice water, and doused all his abed charges.

"No sleeping under my management," he yelled, "especially at night."

Incidental Baseball Philosophy

Inasmuch as luck itself is almost synonymous with The Unexpected, the man who "plays lucky" seeks to do the unexpected. To do what your opponents thinks you will do is trying to win the hard way. The star player takes 'em by surprise.

Ty Cobb, who once scored on a bunt, was an outstanding exponent of this doing-the-unexpected system. When on base his rivals never knew what he'd do next. As a result they were nervous and jittery, which gave him many opportunities to exploit their mistakes. Cobb did not wait for "the breaks." He forced them. However, Cobbs don't appear often. Few are so supremely gifted as to frighten Lady Luck into doing their bidding.

The Lucky Man studies not only rhythms and cycles. He studies the mannerisms and methods of those with whom he vies. By taking advantage of their habits and characteristics he can upset them on occasion. Unnerved, they will start a run of bad luck for themselves.

This sort of bad luck forcing, of course, can be exercised best when the player has met his opponents several times previously. Contrariwise, he must take care not to have pet idiosyncrasies and telltale signals of his own, lest his opponents spot and exploit them. As baseball players say: "Don't tip your mitt."

Maybe He's Another Dayton Genius

In Dayton, Ohio, "Dope" was introduced to the inventor of SPEEDBALL. More action in less time is the keynote of his ballgame. Here's how it is played:

Thirty-six participants. Each side supplies nine hitters, and a second platoon of defenders.

Three defensive outfielders are sent to the outfield at the beginning of the game, and left there for the rest of the afternoon. When the offensive team is at bat designated defensive outfielders sit. This eliminates travel time to and from the dugout.

Non-hitting catchers never take off their chest protector, leg guards, or mask—thus eliminating baseball's most tedious costume change.

Under the rules of Speedball (as projected by our Dayton, Ohio friend) a batting lineup would be restricted to proven good hitters. And the defensive club to sharp fielders.

This inventor may have something, at that. With nine hitters, and nine glove-men to watch, spectators might have twice as much fun.

Even organized roller skating switched to two platoons years ago. So has always exciting professional football. Is baseball too stuffy to join the parade?

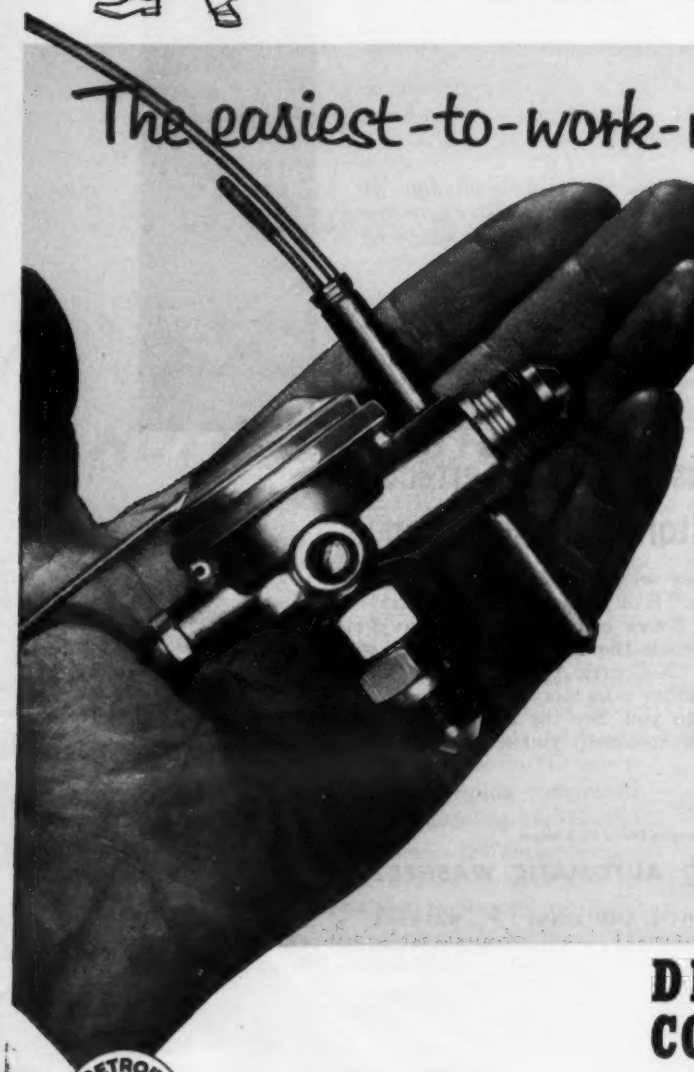
Save Time! Save Money! Save Effort!

DETROIT 777

"SPACE SAVER"

Thermostatic Expansion Valves . . .

The easiest-to-work-with valves on the market!



- Capacities—⅛ to 2 tons, F-12—Standard Valve —1 to 3 tons, F-12—External Equalizer
- "C" and "Z" cross charges available
- Compact, rugged construction
- Mount in any position
- Easily cleaned cartridge needle and seat assembly
- Accessible and easy superheat adjustment
- Large inlet strainer, easily cleaned
- Available with or without external equalizer connection
- External equalizer type easily converted to internal equalizer right on the job.

DETROIT CONTROLS Corporation

5900 TRUMBULL • DETROIT 8, MICHIGAN

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Representatives in Principal Cities • Canadian Representatives in Montreal, Toronto, Winnipeg—Railway and Engineering Specialties, Ltd.

AUTOMATIC CONTROLS for REFRIGERATION
AIR CONDITIONING • DOMESTIC HEATING • AVIATION • TRANSPORTATION • HOME APPLIANCES • INDUSTRIAL USES
Serving home and industry

AMERICAN STANDARD • AMERICAN BLOWER • CHURCH SEATS & WALL TILE • DETROIT CONTROLS • KEWANEE BOILERS • ROSS EXCHANGERS • SUNBEAM AIR CONDITIONERS

LARKIN
MEANS DURABILITY

THE ORIGINAL, PATENTED
CROSS-FIN COIL

The refrigeration coil that changed an industry stands today unchallenged for performance, user satisfaction and lasting durability. Made from the finest materials by skilled craftsmen under exacting standards, every Larkin Coil features imbedded fin-to-tube contact, swaged connection, silfos welded construction, and staggered tubing. Write for complete details.

Manufacturers of the original Cross-Fin Coil • Humi-Temp Units • Frost-O-Trol Hot Gas Defroster • Evaporative Condensers • Cooling Towers • Air Conditioning Units and Coils • Direct Expansion Water Coolers • Heat Exchangers • Disseminator Pans.

WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS INC.
519 MEMORIAL DR., S.E. • ATLANTA, GA.

Pocket cooler profits

with INTERNATIONAL AIR CONDITIONER COVERS

MADE OF Firestone Velon

2,000,000 air conditioners already sold . . . 1,500,000 predicted for this year! Here's your chance for cool, EXTRA profits. Sell the first and finest . . . sell INTERNATIONAL Air Conditioner Covers, made of heavier gauge, trouble-free Firestone Velon. Get the jump on the market . . . let us show you how with our handsome cooperative advertising plan . . . get the facts today.

Retails from $6.45 to $8.45.

27 styles to fit every leading make from 1/3 to 1 ton, 1951 to 1954 models.

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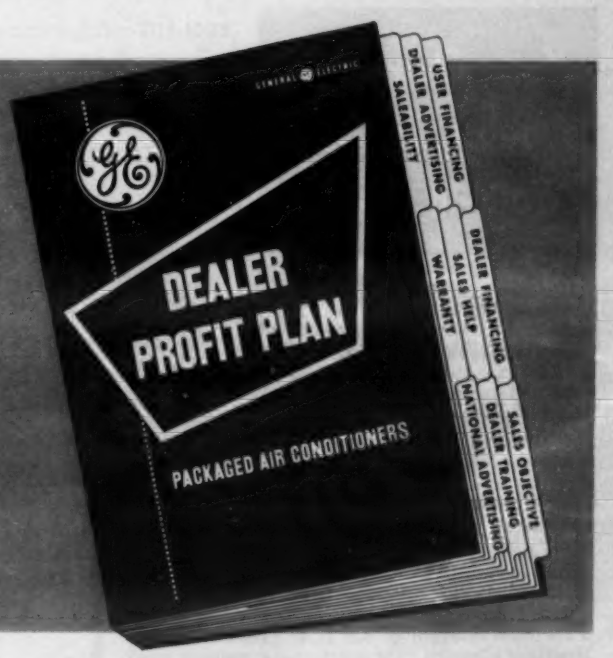

Packaged AIR CONDITIONERS

Freezer Furnished Free

Frozen Food Plan for Apartment Houses Offers Convenience as Chief Appeal to Tenant

(Continued from Page 1)

was manager of consumer products for the Portland, Ore., branch of Westinghouse Electric Supply Co. Previous to that he was sales promotion manager for Westinghouse's northwest district.

The new Westinghouse freezer is an 11.3-cu. ft. upright box containing four compartments, each of which is locked by a separate key. Each compartment contains approximately 3 cu. ft. of space.

According to National Self Service's merchandising plan, the frozen food locker operator will buy these boxes by the carload, and install them in the basements or service areas of apartments in his exclusive territory. There is no charge to the apartment owner for the boxes and there is no charge to the tenants for using them. The locker operator retains title to them, Dunn explained.

Locker Operator Stocks Chest as Directed

Tenants desiring to utilize the service are given a key to one compartment in the freezer. The locker operator stocks the compartment with the food desired by the tenant. Each food package is identified and marked with a price.

As the tenant takes the food from the freezer compartment, she notes on an inventory order form provided by the locker operator the number of packages and the price. This form remains in the freezer compartment.

On a specified day each week, the route man from the locker plant visits the freezer. Before his arrival, the tenant has totaled up the cost of the food she has used during the past week, using the information already marked on the form, and left the money for it in the freezer. She also notes on the inventory order form what other foods she wants in addition to replacements for the food used.

Stock Inventoried Monthly

The route man collects her money and takes her order back to the locker plant. The next day, he delivers her new order and leaves a new properly marked inventory sheet. Once a month he takes a complete physical inventory of the freezer compartment, just to be sure no errors have been made.

Experience has shown, Dunn said, that the great appeal of this plan to apartment house dwellers is the convenience of having a store right in their own building that they can reach easily any time they need to. Their appreciation of convenience is one of the primary reasons they are living in an apartment house in the first place, he noted.

Apartment Managers Welcome Added Rental Feature

Apartment house managers have welcomed the idea, he said, because it gives them an additional feature to offer to prospective tenants and an appeal that apartments without this service won't have.

For the locker operator, he said, a single carload of freezers will mean from 336 to 400 additional customers per week spending an average of $10 each in his plant. Even at a gross profit of 25% on the food sold, he can meet all the expenses involved in the plan, including the cost of the freezers, and show a net profit of $14,000 the first year. In succeeding years, Dunn claims, the net profit should be more than double that figure.

Dunn pointed out that one route man can service from 84 to 100 freezers a week. He can do this, he said, because the freezers will be concentrated, with large apartment houses having several in one location. Also he does not have to wait for customers. He merely services the freezer—picks up and replaces order forms, picks up money, makes change, adjusts and replaces the stock, fills orders, and keeps the compartments clean.

Refrigerated Truck Not Needed for Delivery

Because the route is concentrated, Dunn added, the route man does not need a refrigerated car. He can use a station wagon or panel truck so that a load can be delivered in less than an hour. In this way, he makes frequent short trips between the locker plant and the freezer, so that the food is unrefrigerated for only a short period of time.

Another advantage for the locker operator is that he can shift the freezers about as needed. If he finds that a freezer is not needed in one location, he can easily move it to another. And, if he were ever in the position where he did not have another location for it, he could easily remove the locks and sell the box as a domestic freezer, Dunn said.

Dunn said that the plan has been tested for 10 months by the Johnny Quick Freeze locker plant in Portland. He said that this operation will continue to act as a proving ground for additional ideas the company has for this type of merchandising.

John Trullinger, owner of Johnny Quick Freeze, is secretary-treasurer of National Self Service.

National Self Service now feels,

(Concluded on next page)

Calculating Cutie Considers Cube Count

SHAPELY SALLY McGEE makes a try at guessing ice cube output at the Deepfreeze Home Appliance booth at the National Frozen Food Locker Institute's annual convention, held in St. Louis Sept. 19-22. With a Deepfreeze home freezer offered as a prize, locker men were invited to estimate how many ice cubes a Deepfreeze refrigerator would freeze in 24 hours.

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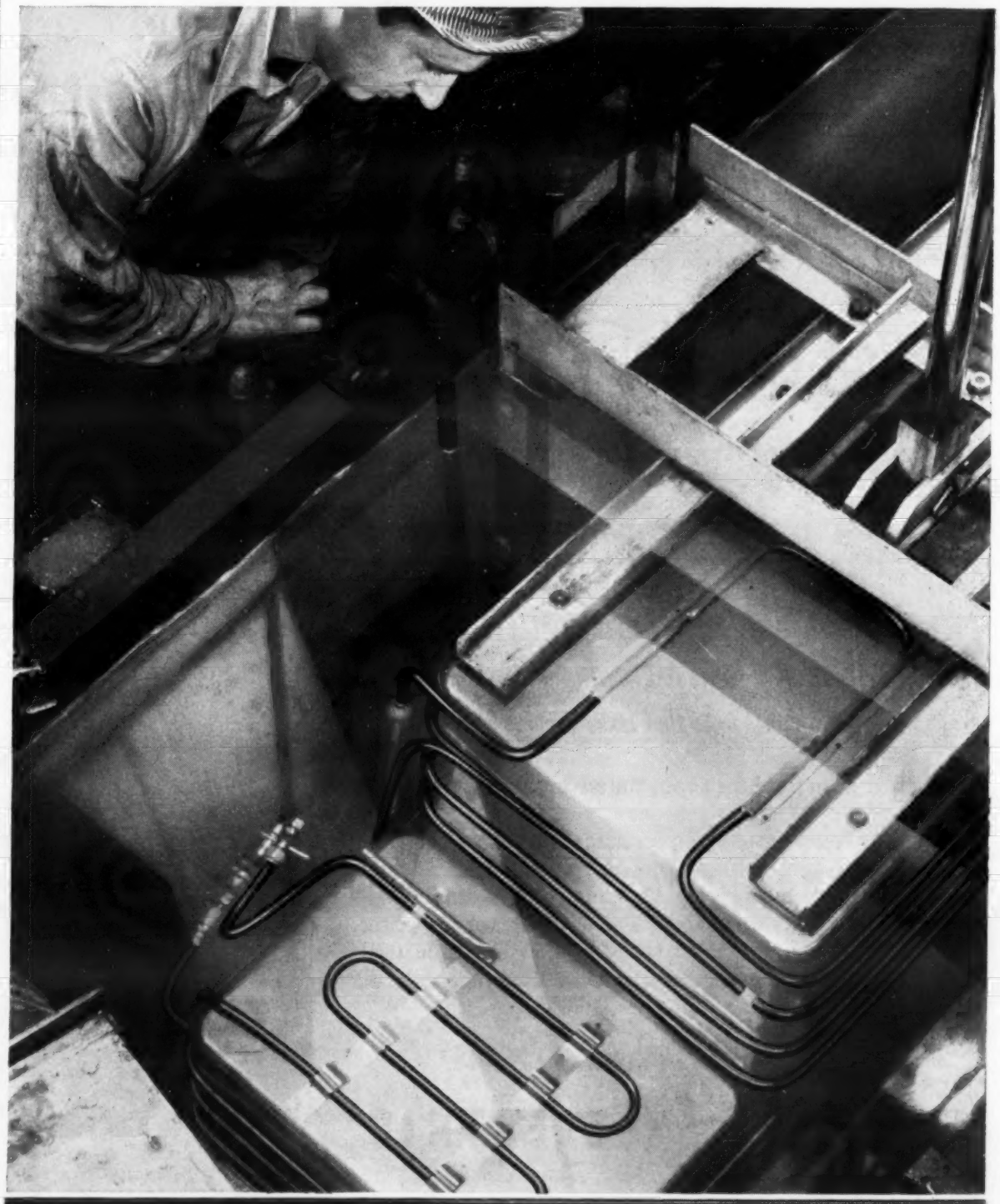

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Apartment House Frozen Food Plan--

(Concluded from preceding page)

he said, that it is ready to franchise locker operator dealers in other cities. The first such franchise has been established in Salem, Ore. The company is now attempting to set up dealers in Denver.

National Distribution Planned

"We expect to expand nationally with this idea," Dunn declared, "but we are going to take it slow and easy. We want to make sure that we have the right type of dealers and screen out those who want to make a quick killing and get out."

Explaining some of the operational details of the plan as they have worked out in his operation, Trullinger declared that, for the locker operator, the key to the whole plan is to retain ownership of the freezers and not charge a penny for their rental.

"When you do this, you have a captive market," he asserted. "The consumer is using your freezer to store your food. She can't very well buy food somewhere else and store it in the freezer. But once you charge for the space, she will feel free to put in it whatever she wants, for it's her freezer.

"We have had times when the supermarkets made an effort to crack our market by offering frozen orange juice at their cost. We have beaten them on this by urging our customers to buy all the frozen orange juice they can from the supermarket at that price and store it in the freezer. The super sold a heck of a lot of orange juice but didn't make a penny on it. Then when they put the price back up—if our customers liked that brand—we could buy it in quantity and sell it to them for the same price or less than the super.

Food Sales Profit Averages About 25%

"We have found that our average order is for about $7.50 a week. And we make an average 25% profit on our sales. Of course, actual figures vary from about $4 a week to $18 or $20 a week. On some items we make only 15% profit and on others up to 31%. Naturally we push the items on which we make the most profit.

"Though we haven't put any service charge on small orders as yet we are considering instituting a $1 service charge on orders of less than $5.

"Another big advantage that the plan offers is the terrific turnover rate on food. With a total inventory in each compartment of only $15 to $20 and weekly orders averaging $7.50, we get a 100% turnover every two or three weeks."

Driver Takes Back Items That Are Not Being Used

Trullinger noted that the packages of food placed in the freezer bear color coded price stamps, with a different color for each month. The route man keeps an eye on these stamps and if he finds some foods not being used, he takes them back and credits the customer for them. He always has other customers who use that particular item and finds no trouble in placing it somewhere else where it will be used quickly.

In this way, he said, the food in the lockers is always fresh.

Trullinger explained that when starting the plan in an apartment, he first gets the consent of the manager to allow him to install the freezers and gets an agreement giving him the right to access to the freezers. To spare the apartment manager any expense, he has even paid the electric bill on the freezers installed. However, where the freezers are not separately metered, the apartment owners have accepted this cost.

When a new apartment is opened up to the plan, Trullinger has found it best to install only a few freezers at first.

"In one apartment with 300 tenants, we installed only 10 freezers at first, giving our service to 40 families. Once these families got to using the service, they became salesmen for the plan and quickly sold other tenants on it."

Uniformed Driver Explains How System Works

After the management is contacted, Trullinger has his home economist contact the tenants to explain the plan and get their initial food order. When the uniformed route man delivers the order, he goes to the tenant's apartment, introduces himself, presents the tenant with the key to her compartment, gives her a wall calendar which has a place to hold the key, and then takes her to the locker and explains again how the system works.

In this way, the route man establishes a friendly working relationship with the housewife that is very pleasing to her.

"What we are really doing here," Trullinger stated, "is getting back to the old time grocery store as it was before the supermarkets. The apartment dweller has a 'store that never closes,' he can always find in it what he wants, he gets free delivery, and he gets a week's credit on his grocery bill. These are things that he can't get at the supermarket and it costs him no more."

One Apartment Manager Provided Bulk Storage

Trullinger commented that for one apartment house manager, he installed an additional freezer without locks. This unit he stocked with frozen poultry and other bulky meat items that would take up too much room in the regular freezer compartments.

When a tenant wanted to buy a turkey or a chicken, she would see the manager and get one from the freezer. She would pay the manager the price marked on the package and he in turn would pay the route man. This additional service has worked out very well, he said.

Freezer Described

The Westinghouse commercial frozen food storage cabinet, for which National Self Service has exclusive national distribution, is 65 in. tall, 32 in. wide, and 29⅞ in. deep. The top and bottom of the four compartments are of 2.6 cu. ft. capacity holding 91 lbs. of frozen food. The top compartment has 3 sq. ft. of shelf space. The bottom compartment, a drawer type compartment, has 2.7 sq. ft. of shelf area.

The second compartment from the top has 3.1 cu. ft. of space and 3.1 sq. ft. of shelf area. It will hold 108 lbs. of food. The third compartment has 3.0-cu. ft. capacity and holds 104 lbs. of food. It also has 3.1 sq. ft. of shelf area.

Refrigeration coils in the back and sides surround the storage compartments with zero cold. The primary system keeps plates in the top and bottom of the top compartment far below zero and contributes to a uniform temperature, Westinghouse says. Frost can only collect on primary system plates, so that only the top compartment needs to be defrosted. Secondary system coils are sealed within the cabinet.

Shelves are non-removable. On the inside of each compartment door are blue anodized aluminum order form holders, which also serve as a writing area. Compartment locks are supplied separately by National Self Service, giving that organization control over the various combinations.

Temperature control is factory set. A built-in watchman protects against burnt out motor due to electrical or thermal overload. It automatically turns off the power, then resets itself. A guard-light automatically goes out if the mechanical unit, for any reason, is inoperative or the temperature within the cabinet rises.

Door latch is self-aligning.

Stop tubing leaks before they start; use Bundyweld

Naturally enough, Ben Hur Manufacturing Company is vitally concerned with maintaining leak-free operation of its fine line of home and farm freezers.

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In addition, Bundyweld is backed up by a wealth of plus-services you'll appreciate. Skilled Bundy engineers, with years of problem-solving experience, specialize in showing Bundy customers ways to save time and money. Our unexcelled fabrication facilities stand ready to bring you clean, bright, accurately produced, carefully inspected parts, *shipped right on schedule*, ready for assembly. If you fabricate your own parts, we'll ship you clean, bright, ready-to-use tubing, exactly as specified.

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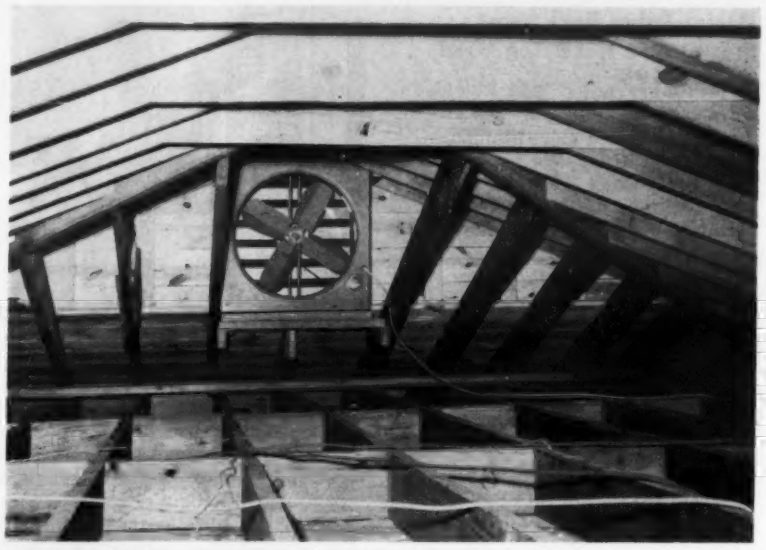
How Contractor Reduced Original, Operating Costs In Year-Round System for New Homes



TWENTY-FOUR-INCH LAU PANEL FAN installed in the gable end of the attic of the garage of homes built by the Siber Realty & Development Co. was credited with substantially reducing the heat load in a move to cut original equipment and operating costs of residential air conditioning system.

DAYTON—Working in conjunction with a heating engineer, a Dayton building contractor claims to have successfully reduced the initial cost and operating costs of air conditioning his homes.

On the assumption that 40% of the heat gain on a modern home is confined to the ceiling area, Dan Taubman, of Daniel's Heating and Air Conditioning Co., advised the Siber Realty and Development Co., of Dayton, to reduce this heat gain by air washing the attic of the homes to be constructed.

Taubman was confronted by a contractor who said flatly that his homes, in the $40,000 to $50,000 market, would be too large for anything less than a 5-ton air conditioning unit. The cost of this was prohibitive, he told Taubman. He based his 5-ton estimate on the statements of air conditioning engineers who had been called in on consultation.

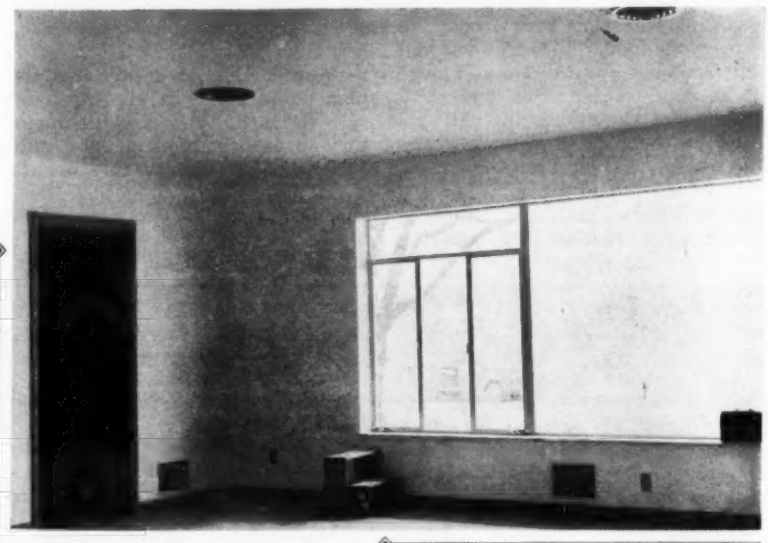
Taubman suggested an exhaust fan in the gable end of the attached garage, estimating that reduction in heat gain would permit installation of a 3-ton unit. The Lau Blower Co., he pointed out, had installed a 30-in. fan in their laboratory attic—a huge area 150 ft long—and cooled it 24° by running the fan only two hours. If a fan could do the job in an attic that large, Taubman figured that a fan in a residence attic, run all day long, would pull the temperature of the attic down even more.

The builder went ahead with the idea. He installed a 24-in. Lau exhaust fan in the attic as suggested by Taubman and a 3-ton air conditioning unit in the home. The

(Concluded on next page)

Residential Air Conditioning

LOUVER IN THE GABLE COMBINED WITH fan to "air wash" the attic and reduce heat gain from the ceiling area. Daniel's Heating & Air Conditioning Co. considered this heat gain to be approximately 40% of the total.



A WATERFALL EFFECT was achieved by joining air conditioning and heating systems together to create a "comfort zone" about 6 ft. high in all rooms. Cold air flows up, then falls to cool rooms.

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SOFFET VENTS PROVIDE for free circulation of air from a variety of angles to gain benefits from shifting breezes.

AUTOMATIC EXHAUST LOUVERS, installed in the attached garage, aid in circulating air throughout the entire attic space and in reducing the radiant heat effect on the homes.

Cutting Costs of Residential System--

(Concluded from preceding page)

smaller air conditioning unit accounted for a saving of $400. Three hundred additional dollars were saved in the costs of insulation of the attic and ductwork. With the 3-ton unit using 2 hp. less than the 5-ton unit, there was a saving in electricity. The Lau fan has a ¼-hp. input.

The homes were completed in early 1954 and have been occupied through this summer's heat. In addition to being satisfied, the owners report savings in water consumed by the smaller air conditioning unit. Taubman points out that the unit is only supposed to handle 36,000 B.t.u. heat gain but says it is doing a successful job in homes with a 44,000 B.t.u. heat gain. The fan in the attic is the margin of safety.

The Lau Blower Co., which manufactures air conditioning blowers as well as exhaust fans, is currently conducting a research project in the new homes to determine actual heat gains and reductions through the use of air washing.

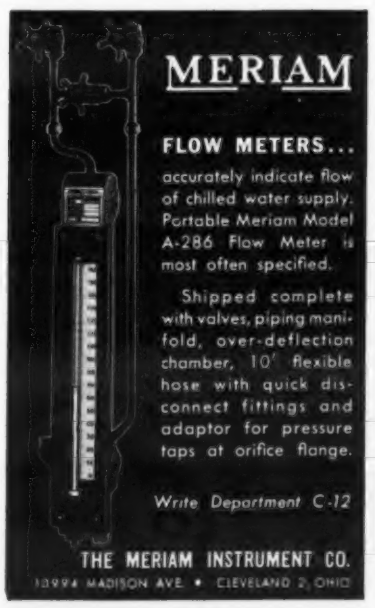
Taubman says that although he and the builder are satisfied that the idea of air exhaust has reduced the cost of air conditioning the homes in this project, different type homes would have to be checked for heat gain before designating the size of the fan and air conditioning unit. Yet he feels that using an attic exhaust fan in conjunction with air conditioning will bring the cost of the operation within the range of those building less expensive homes.

Air conditioning engineers in Dayton are said to be recommending exhaust fans, particularly in two-story houses, where ducting to the second floor is a serious problem.

Figures from Tentative Manual No. 11, published by the National Warm Air Heating and Air Conditioning Association, are claimed to substantiate these theories. On page 28, table seven, the heat transmission "U" coefficient for a lath and plaster ceiling with attic space but no floor is calculated as .69. If the attic is ventilated, the coefficient drops to .32 or a reduction of approximately 55%, it is pointed out.

In the case of the Dayton homes, Taubman connected the air conditioning system to the heating system using the same ducts for both. This provided a "waterfall" effect in a comfort zone about 6 ft. high in all rooms of the homes. The cold air flows up, then falls to cool the rooms. The cool air rises at about a 60° angle from the wall registers.

Return registers are located in the ceiling.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To Air Condition Homes In 48-Unit Cincinnati Project

CINCINNATI—A program of 48 one-family air conditioned homes with prices starting at $19,500 has been announced by O. O. Thompson, builder.

The development, known as Thompson Acres, is located on Galbraith Rd. A model home at 1161 Galbraith has been opened for public inspection.

Featuring Carrier air conditioning, the project will have a variety of exterior designs including combinations of shingle, brick, stone, and asbestosboard siding.

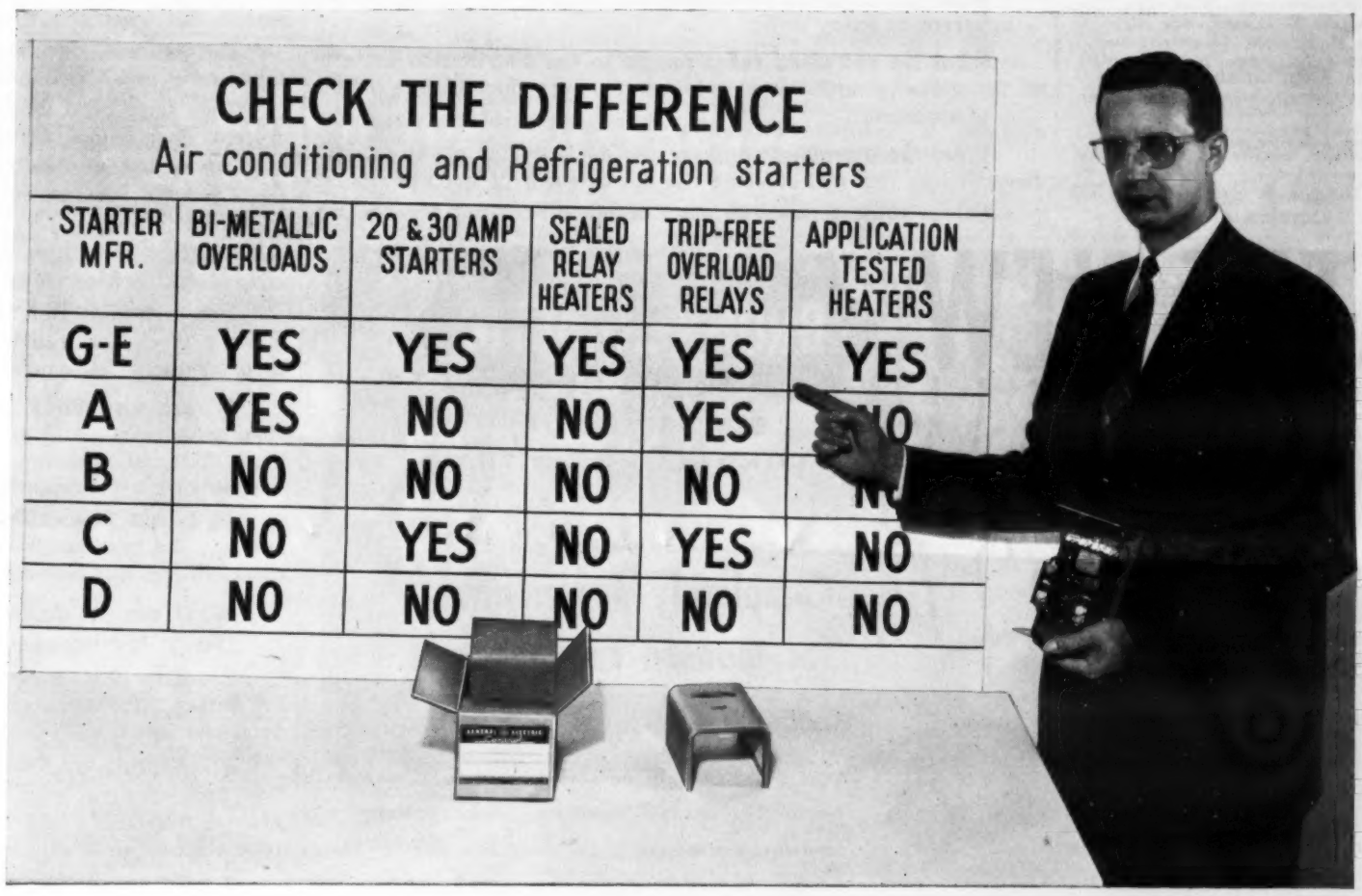
Airtemp Names Loveley Engineering Vice Pres.

DAYTON — Appointment of Joseph D. Loveley to the new post of vice president in charge of engineering of Airtemp Div., Chrysler Corp., has been announced by C. E. Buchholzer, Airtemp president.

J. D. Loveley

A chemical engineering graduate from the University of Detroit in 1934, Loveley joined Chrysler the following year. Affiliated with the materials testing laboratory of central engineering, he was in 1937 named metallurgical contact with the Airtemp plant.

In 1941 he was transferred to Dayton as chief inspector of Airtemp. After serving as assistant chief engineer, he was appointed chief engineer.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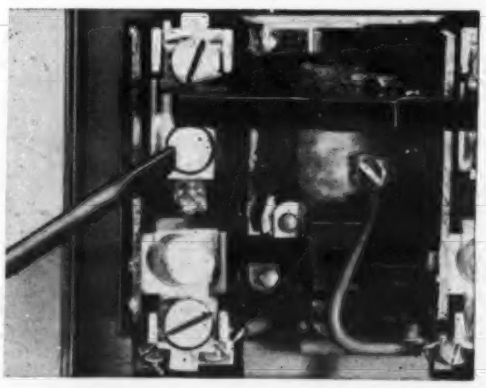
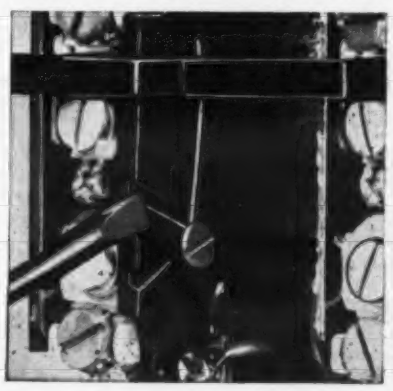


FOR SYSTEMS REQUIRING REMOTE RESET, General Electric trip-free overload relays may be factory adjusted for automatic reset.



TRIP-FREE RELAYS PROVIDE tamper-proof motor protection during overload. Holding or wedging reset button cannot operate motor.

AIR CONDITIONING & REFRIGERATION News

Trade Mark registered U. S. Patent Office; Est. 1926.

F. M. COCKRELL, *Founder*

'The Conscience of the Industry'

Published Every Monday by
BUSINESS NEWS PUBLISHING CO.
450 W. Fort St., Detroit 26, Mich.,
Telephone Woodward 2-0924.
New York Office: 521 Fifth Ave.,
Telephone Murray Hill 7-7158.
Chicago office: 134 S. LaSalle St.,
Telephone Franklin 2-8093.
Ohio Office: Commercial Bank Bldg.,
Berea, Ohio. Telephone Berea 4-7719.

Subscription Rates: U. S. and Possessions and Canada: $6.00 per year; 2 years, $9.00; 3 years, $12.00. All other countries: $10 per year. Single copy price, 40 cents. Ten or more copies, 30 cents each; 50 or more copies, 20 cents each. Send remittance with order.

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VOL. 73, NO. 5, SERIAL NO. 1,333
OCTOBER 4, 1954

Air Conditioning's Need: Manpower

We were struck the other day by a headline on a press release that came across our desk. It read:

"MATT LAWLER SAYS TRAINED MANPOWER SHORTAGE GREATEST HANDICAP TO AIR CONDITIONING BOOM."

Down into the text, we found that this Worthington Corp. vice president insisted that "the industry's major problem is trained manpower at all levels—the professional engineer, the manufacturer, the installer, and the serviceman. How rapidly this trained manpower becomes available will govern to a great degree the time it will take to realize the industry's greatest opportunities."

Lawler added that this problem is not limited to any one segment, nor will it be solved by any one organization or group of organizations.

But, he said, "The problem is one to which all of us individually in our own organizations and collectively through our trade associations, contractors associations, and professional societies must address our best efforts."

In plain words, one of the top figures in our industry is telling us that lack of education is holding back the progress of our industry.

What the untrained serviceman can do *to* or *for* our customers is apparent to every seller.

What the untrained seller can do to the distribution pattern of the industry, and the acceptance of our product by the public also is apparent.

What the untrained engineer can do is not so apparent, but nevertheless real in hindering the development of good products.

Put in those terms, the price of ignorance—not because we are stupid but just because we haven't been taught properly—is not hard for people in our industry to grasp. It is dollars and cents right out of our pockets.

Let's raise our sights a bit. Admittedly the air conditioning industry is booming, and the problem of education is sharply accented. But what about the whole country?

The nation's educators are telling us that the same problem exists on a broad national scale.

They have been dinning it into our ears for years that our present day school facilities are not adequate to handle the burgeoning crop of children that this country produces every year.

Even the present rate of increasing those facilities is not adequate.

Furthermore, there are not enough teachers to go around, instead of more teachers being trained to educate our children.

Men and women of the intelligence and abilities to teach can make a much better livelihood applying their talents in private industry than in the public school system.

In such a situation, what is going to be the lot of air conditioning industry—and all the other industries that make up our great national economy—10 or 15 years from now? What will happen to the progress of our nation then?

To repeat Lawler's words, but applying them on a broader scale: "The problem is one to which all of us individually . . . must address our best efforts."

What can we do as individuals to help?

Plenty. For instance, we can:

1. Help provide the needed funds for school expansion and for better teachers salaries—by voting in favor of needed appropriations in our school districts.

2. Approve by ballot needed changes in school administrative policies to attract better and more teachers—such as improved retirement benefits, tenure laws, and leave of absence regulations.

3. Encourage people with the desire and proficiency and adaptability to teach to enter the educational field—possibly even by the same methods we encourage athletes to pursue their education.

4. Through your ballot, it may be possible to get the men and women who recognize the problem, and have the ability to get things done, on your school board.

5. Get on the school board yourself!

They'll Do It Every Time . . . . . Jimmy Hatlo

OH, CHRIS··· HAVE YOU GOT A SCRAP OF LUMBER EIGHT FEET LONG, SEVEN INCHES WIDE, ABOUT AN INCH THICK··· WITH NO KNOT-HOLES? HAVE YOU, PAL?
MAINTENANCE DEPT.
WELL··· UH···
··HE WAS IN THE OTHER DAY FOR A HUNK OF SCRAP WIRE··· TWENTY-FIVE FEET LONG··· NUMBER 10 INSULATED, NO LESS!
HE MUST HAVE BUILT A DEVELOPMENT WITH THE STUFF HE'S CONNED OUT OF THIS DEPARTMENT···
WHAT I WANT TO KNOW IS HOW HE'S GONNA SMUGGLE THAT EIGHT-FOOT BOARD OUT IN HIS BRIEFCASE···
HE WANTED A ROUGH PENCIL SKETCH OF A STAIRCASE— AN' I END UP DOIN' HIM A BLUEPRINT OF A HOUSE···
WATCHING THE OFFICE FREELOADER PUT THE BITE ON THE PLANT CARPENTERS···
JIMMY HATLO
8-16
COPR. 1954, KING FEATURES SYNDICATE, Inc., WORLD RIGHTS RESERVED.
THANK AND A TIP OF THE HAT'S HAT TO DON WILLIAMS, 2121 DOUGLAS ST., SIOUX CITY, IOWA

Quotable Quotes

For no clear reason, people still believe that every author is an orator; that the job of writing for a living silvers entrancingly even the thickest tongue. Sculptors are not expected to be gifted adagio dancers. The public never presumes that every painter is also a concert pianist. Musicians, in their unprofessional moments, are not invited to entertain with feats of legerdemain. But authors are different.—FREDERIC F. VAN DE WATER.

Pious people who impute a virtue to their dullness have done a great disservice to religion, by making it easy for sinners to dismiss heaven as a place filled with intolerable bores. Religiosity without charm or humor creates more rebels than converts. God cannot be solemn, or he would not have blessed man with the incalculable gift of laughter.—SIDNEY HARRIS.

Only he who can see the invisible can do the impossible.—R. S. MACARTHUR.

The most incredible thing about miracles is that they happen. A few clouds in heaven do come together in the staring shape of one human eye. A tree does stand up in the landscape of a doubtful journey in the exact and elaborate shape of a note of interrogation.—*The Blue Cross.*

...THE NEW BRUNNER-METIC
SEMI-HERMETIC CONDENSING UNITS

AIR-COOLED
Now Available in
10 MODELS
Commercial and
Low Temperature Applications
¼, ⅓, ½, ¾ and 1 H.P.

WATER-COOLED
Now Available in
8 MODELS
Commercial and
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Completely dependable for modern refrigeration requirements

Yes, BRUNNER-METIC units are dependable . . . but that's not all. They're rugged, compact . . . quiet . . . easily installed and serviced.
And there's a *right* unit for *new* or *replacement* use in dozens of applications where economy, capacity and on-the-job serviceability are absolutely essential.
The BRUNNER-METIC combines top performance with fast field servicing. Bolted construction throughout, for complete field take-down. Compact, rugged assembly. Suction gas return helps cool motor and compressor for longer life. Suction and discharge valves in one common plate, easily replaced by removing cylinder head. Oil check snifter valves permit positive check on oil level in compressor. Cleanable condenser in water-cooled models.

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Send this coupon for new technical data, folders and bulletins on the complete BRUNNER-METIC line.
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BRUNNER SINCE 1906 means DEPENDABILITY

Belknap Heads Penn Controls Wichita Office

GOSHEN, Ind.—Penn Controls, Inc. has announced the appointment of David F. Belknap as district manager for a new office in Wichita, Kan.

D. F. Belknap

The placing of a new branch in Wichita is expected to enable Penn to maintain closer contact with its wholesaler and dealer organizations, and afford better coverage for the expanding automatic control market in this area.

This branch will cover all of Kansas, the western section of Missouri, the northwest corner of Arkansas, the northern half of Oklahoma, and the Texas Panhandle.

Belknap joined Penn in July, 1953, enrolling in an extensive six-month sales training program. He then worked as a sales engineer.

The new office is located at Room 211, Derby Bldg., Wichita 2.

Frank Parker Appointed To Detroit Controls Post

DETROIT—Charles H. Hodges, Jr., president of Detroit Controls Corp., has announced the appointment of Frank A. Parker as director of research and engineering.

Parker was formerly research director of the Detroit Controls Research Div. at Redwood City, Calif., engaged in the development of automatic controls for home and industry and specialized ordnance devices and controls for the armed forces and the Atomic Energy Commission.

He is a member of the American Association for the Advancement of Science, the Atomic Industrial Forum, the American Rocket Society, the American Ordnance Association, and the Research Institute of America.

DESK ARRANGEMENT in new office lets Ila H. Unseld and Clarence W. Harris confer quickly and easily on problems of managing Harris Supply Co., parts wholesaler in Grand Rapids, Mich.

Harris Supply Co. of Grand Rapids Expands Quarters and Improves Office Operations

GRAND RAPIDS, Mich.—Harris Supply Co., refrigeration parts wholesaler here, recently expanded its quarters by a move which doubled its office space in addition to improving office operations.

Although the store is still at the same location, offices have been moved from their previous crowded first-floor location to three rooms directly over the store in the same building the company has occupied for several years.

Three separate rooms are provided in the new upstairs office arrangement.

Outer office serves as a reception room and is occupied by a receptionist-clerk. There's also a large table which is used by the company's outside salesmen for making reports, etc.

Another office is used by the bookkeeper.

Third room is occupied by Ila H. Unseld and Clarence W. Harris, who manage the company. This office, which has two desks side by side, is also furnished with comfortable overstuffed chairs to the delight of visitors.

An accordian-plait type door in the archway permits the executive office to be shut off from the reception room whenever it is found desirable.

The arrangement, point out both Ila Unseld and Clarence Harris, can prove of great convenience, say, in holding conferences without being restrained by the presence of salesmen or outsiders in the reception room.

A dumb waiter arrangement has been installed to handle the movement of paperwork between the upstairs offices and the store downstairs. In addition, an elaborate "intercom" system connects the various offices, counter, and shipping room.

PAPERWORK can be quickly sent from offices to store below, or vice-versa, by means of dumb waiter, as Mrs. Frances Schutt demonstrates.

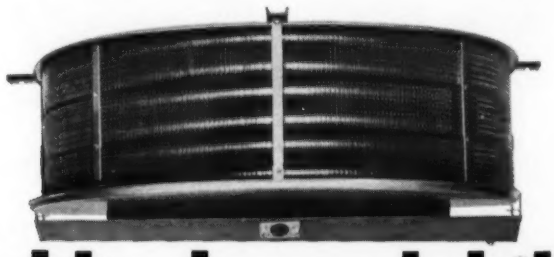
FLOW from Bush blower coil used for air conditioning of Harris Supply's new offices is tested by Clarence W. Harris.

Second floor offices have been air conditioned by the simple installation of three ceiling mounted blower coils connected to a remote 2-hp. water-cooled compressor. Two Bush coils, a WJ-35 and a WJ-45, take care of the reception room and executive office; a Betz 190-HR handles the bookkeeper's office.

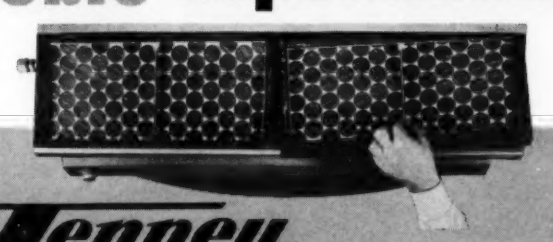
Space formerly occupied by the offices downstairs on the ground floor is being used for display and warehouse purposes.

Air Condition Stationery Store

BUFFALO — Air conditioning has been installed as a feature of the expanded and remodeled Ulbrich's stationery store in the University Plaza, Buffalo.



double dependability



with Tenney

TW* and TWF* Unit Coolers

* TW means TWin fans and motors, F means standard filter sections. Pats. Pending.

Yes, *double* dependability, with twin fans and motors—one motor alone will maintain safe box temperature in an emergency. Available for all walk-in or cold-room applications, Model TWF with standard filters included. Easily installed in minimum space, they are completely open for service by removal of one thumb screw—no electrical or drain lines to disconnect. No special tools needed.

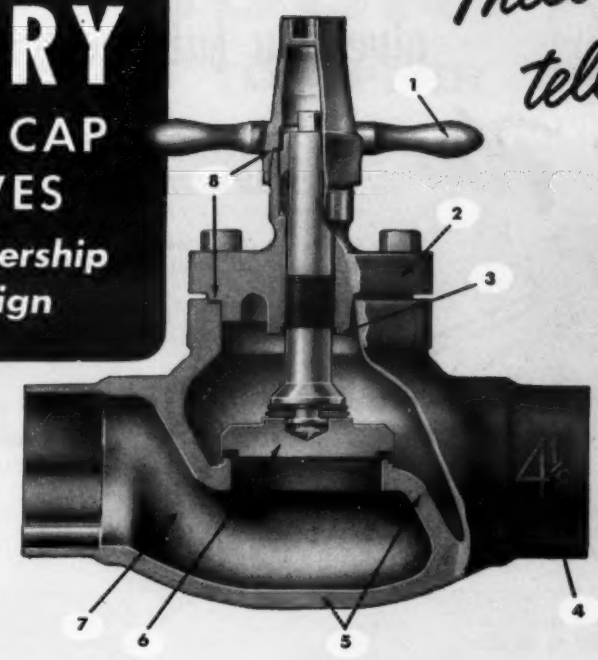
New Bulletin 104-54 tells the whole story. Drop us a card, today.

Tenney ENGINEERING, INC.
1090 SPRINGFIELD ROAD, UNION, N. J.
Plants: Union, N. J. and Baltimore, Md.

Engineers and Manufacturers of Refrigeration and Environmental Equipment

Back of the Unprecedented demand for HENRY WING CAP VALVES is a Leadership in design

These features tell the story



1 WING CAP—with stem operating socket.
2 BOLTED BONNET for maximum safety.
3 BACK SEATING—can be repacked under pressure.
4 VALVE SIZE IDENTIFICATION—on Bronze body.
5 HEAVY WALL—Bronze alloy or Semi-steel for maximum strength.
6 PATENTED, NON-ROTATING SELF-ALIGNING SWIVEL DISC. Easy positive sealing. Minimum seat wear. Chatterproof.
7 FULL CAPACITY FLOW THROUGHOUT.
8 FULLY RETAINED POSITIVE SEALING GASKETS.

Available in bronze alloy and semi-steel types. Sizes range: ⅜" to 5⅛" O.D.S. and ½" to 2" F.P.T. Flanged valves available with brass O.D.S. or steel butt weld adapters, sizes 1⅜" to 5⅛".

Year after year Henry Wing Cap Valves become more popular on both government and civilian refrigeration and air conditioning installations because of the high inherent quality of the valves and their features of design and construction. No other similar product carries such a universal recommendation by wholesalers or is in such wide demand among contractors and service men where the use of a wing cap valve is indicated.

HENRY VALVE CO.
Melrose Park, Ill. (Chicago Suburb)
Cable: HEVALCO, MELROSE PARK, ILLINOIS

Valves, Driers, Strainers, Control Devices and Accessories for Refrigeration and Air Conditioning and Industrial Applications

'Live Produce Merchandiser' Has Ice Maker

LA PORTE, Ind.—The first complete "Live Produce Merchandiser," which incorporates a produce display case and an automatic ice maker is now being offered by Trusty Mfrs., Inc. here.

Utilizing the latest technique in produce merchandising, channel-icing, the unit features the Trusty deluxe display case with a model DER-2B York-FlakIce automatic ice maker mounted on top of the case. A visual ice chute carries the ice to an insulated ice storage bin under the display area.

The Live Produce Merchandiser eliminates the problems of spoilage, shrinkage, and moisture loss, the company says. The ice is manufactured on the spot and stored in the same case which displays the vegetables.

One large eastern supermarket chain reduced its produce loss 50% through the use of channel-icing. This same firm developed the channel-icing technique.

Metal channels filled with ice are placed 18 to 24 in. apart. A raised bottom in the case provides a 6-in. opening under the display. Cold air circulates across the ice channels, which are kept higher than the display and under the produce.

The York DER-2B automatic ice maker is a small, completely self-contained ice making machine which can produce over 300 lbs. of ice a day.

The Trusty display case is made in 5-ft. sections to accommodate any size application.

Frozen Food Case Insurance Protects Stores Against Loss From Mechanical Failures

CORONADO, Calif.—The board of the California Grocers Association recently discussed the fact that a frozen food case insurance program was running substantially above original figures set by insurance companies.

The program is intended to protect food stores against losses caused by mechanical failures and power shutoffs.

"Up to the present time," stated W. D. Hadeler, executive secretary, in his annual report, "the losses by policyholders have been in excess of 54% of the premiums and on a ratio basis on earned rather than written premiums, the current loss ratio exceeds 100%."

He added that if the program reaches a large enough membership, it may change the figures.

Hadeler also took note of a recent ruling by the State Sealer of Weights and Measures. Under this ruling, the weight of prepackaged meat at the time of purchase by the consumer must be as stated on the label, with no allowance for shrinkage.

Hadeler said that to clarify this section of the meat code "so that innocent retailers are not charged by short weight," results of cost studies on meat shrinkage would be issued in presenting the problem to the State Sealer.

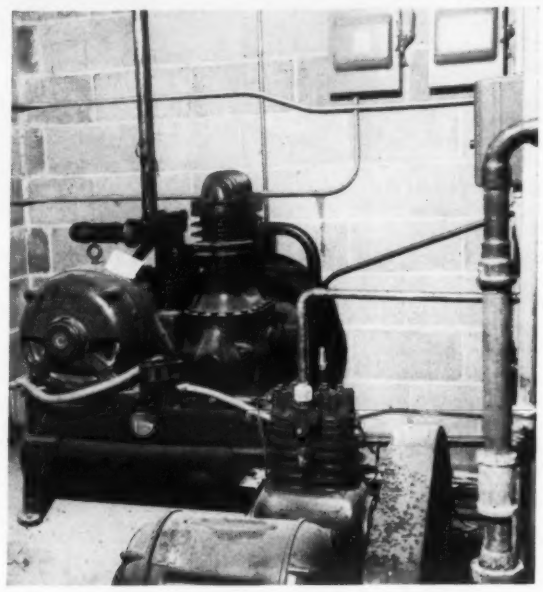
Plans Cooling of Hatchery After Heavy Loss In Heat

COLUMBIA, S. C.—Representative T. W. Blease of Saluda County, who sells thousands of baby chicks each year, plans to air condition his hatchery "even though it costs me several thousand dollars."

A member of the Saluda County legislative delegation here on business recently, Rep. Blease explained why:

"Those hot days in June played havoc with me. I had 36,000 eggs in incubators, and I did not get a single chick out of the batch. It was just too hot and the chickens perished in the shell. Now 36,000 eggs is a lot of eggs and city folk, who buy eggs every week, can figure up the market value."

Commercial Refrigeration



ICE MAKER of 4 tons capacity is powered by York machine at left. Other compressor cools walk-in to hold flake-ice for Rainier Poultry Co.

Ice Maker Joins Other Refrigeration To Help Process 1,000 Chickens Per Hour

SEATTLE—Rainier Poultry Co. uses considerable refrigeration in its poultry and egg business.

In its new building it has a 16 by 12-ft. walk-in freezer, a 30 by 40-ft. cooler for poultry, a 30 by 42-ft. egg storage room, and a 4-ton York Flak-Ice machine which feeds ice into a refrigerated walk-in.

All the equipment was installed by Refrigeration Engineering Co., Seattle York distributor.

The plant can process as many as 1,000 chickens an hour, according to M. Tanaka, head of the poultry company.

Much automatic and semi-automatic equipment is used in the poultry processing operation, which runs overhead conveyors through a scalding tank, picker, and singer.

The walk-in freezer was built by Refrigeration Engineering.

"Most large walk-ins installed in and around Seattle are built locally," comments Sherman W. Bushnell, president of the contracting firm.

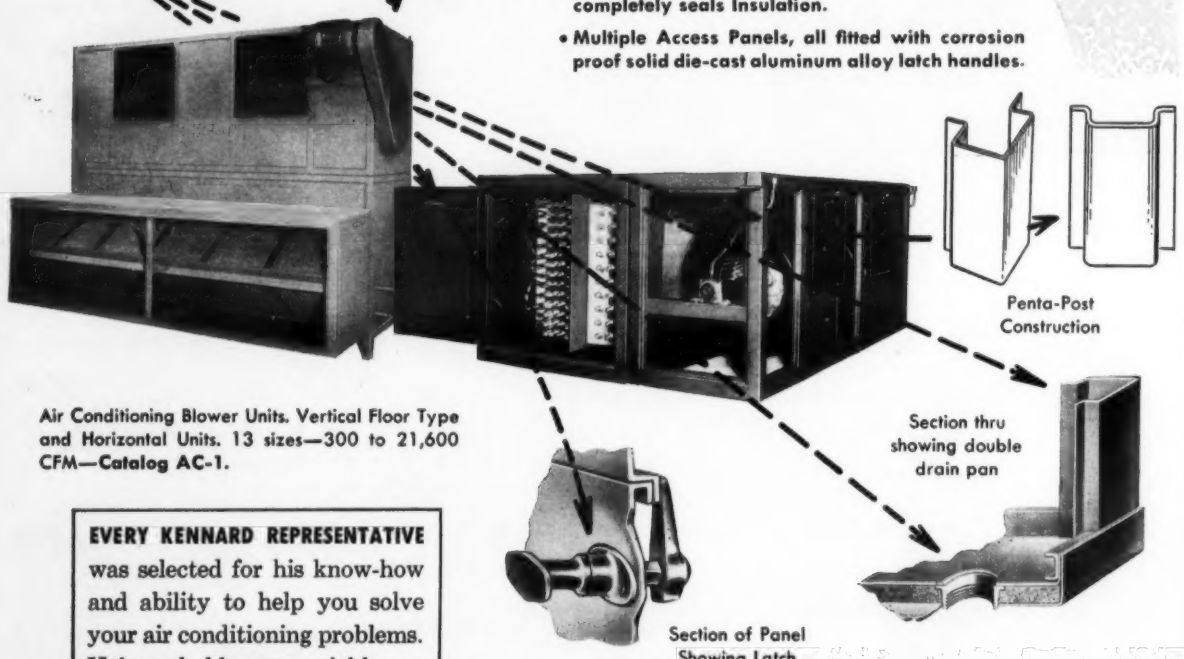
"Distance makes the freight cost on prefabricated sectional walk-ins very expensive in the face of the plentiful supply of cheap lumber we have here."

Birkenwald cold storage doors were installed on the freezer and cooler rooms.

The 30 by 40-ft. cooler is cooled by two Recold water defrost coils.

KENNARD Engineered AIR CONDITIONING BLOWER UNITS give you full value

Plus
- Penta Post Frames (gives strength to spare). Test as shown by Independent Testing Laboratory.
- Drain Pans—double metal pan under coil section completely seals Insulation.
- Multiple Access Panels, all fitted with corrosion proof solid die-cast aluminum alloy latch handles.



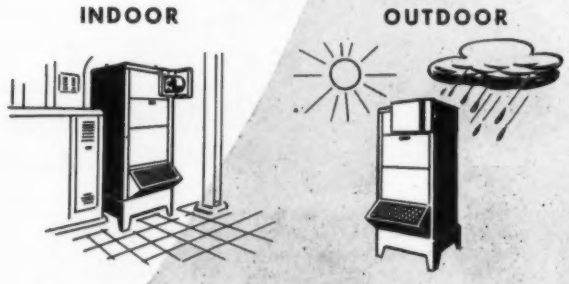
Air Conditioning Blower Units. Vertical Floor Type and Horizontal Units. 13 sizes—300 to 21,600 CFM—Catalog AC-1.

EVERY KENNARD REPRESENTATIVE was selected for his know-how and ability to help you solve your air conditioning problems. He's probably your neighbor—Phone him today.

KENNARD SHELL AND TUBE LIQUID CHILLERS
Direct Expansion
Freon 12-22

Revolutionary internally finned tubing makes them better than 50% lighter and smaller—positive oil return—no Freon head gasket (exclusive with KENNARD) — smaller Freon charge. Sizes 2 to 200 tons. Catalog LC-1.

KENNARD KT WATER SAVERS
(Induced Draft Cooling Towers)



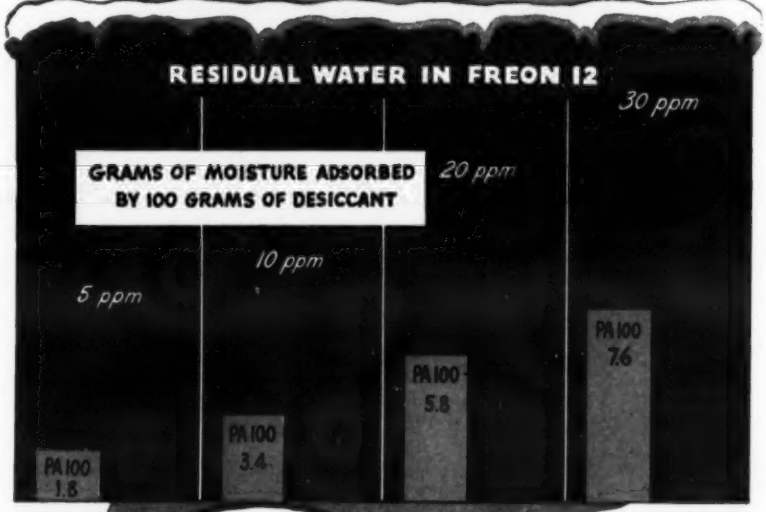
Centrifugal type fan, redwood wetted deck. 5 popular sizes 3, 5, 8, 11 and 16 Tons.
Catalog KT-2.

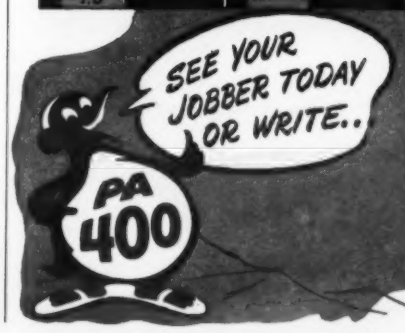
KENNARD CORPORATION • 1825 S. HANLEY ROAD ST. LOUIS 17, MO., U.S.A.

PA® 400
DAVISON'S NEW Refrigeration Desiccant
WITH GREATER MOISTURE ADSORPTION CAPACITY
Up to 98% increase in moisture capacity

The Davison Chemical Corporation has long been a leading producer of refrigeration desiccants and the manufacturer of PA 100 — the top desiccant in the field. Now, after many years of research, they have produced PA 400 — a refrigeration desiccant with a greatly increased adsorption capacity.

Tests run on the moisture adsorption capacity of PA 400 in Freon-12 in comparison with Davison's PA 100 show up to 98% increase in capacity.





Progress Through Chemistry
DAVISON CHEMICAL COMPANY
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Producers of Catalysts, Inorganic Acids, Superphosphates, Triple Superphosphate, Phosphate Rock, Silica Gels and Silicofluorides. Sole Producers of DAVCO® Granulated Fertilizers.
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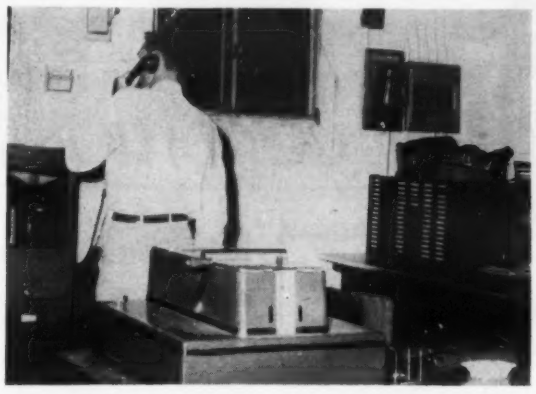


BOB RAMSOUR, general manager of Federal Heating Co., Denver, calls an air conditioning customer whose name appears in Kardex file on the right. Each customer receives a monthly call from which the firm picks up leads on new prospects and determines that the present user is thoroughly satisfied.

'Using the User'

Monthly Telephone Chats with Customers Build Sales Volume, Maintain Good Will

DENVER — An automatic card file follow-up system, which insures that every air conditioning customer will be called every 30 days in an effort to get leads on additional prospects, has proven a powerful air conditioning sales builder at Federal Heating Co. here.

Bert and Bob Ramsour, president and general manager, respectively, have found that 90% of the firm's air conditioning and heating sales have resulted from customer leads. Consequently, for the past five years, an entirely automatic system which keeps up constant contact with previously-sold customers has been developed.

The system hinges on a Kardex multiple-draw metal card file in Federal Heating's sales office. Here, a horizontally-ruled 4 by 6-in. card is made out on every installation, whether it is heating, air conditioning, or other appliances.

Spaces are provided at the top of the card for the name of the salesman, the customer telephone number, the date on which the equipment was sold, its description, price, amount paid, debits, and credits.

Thirty days following the installation, on the next line down, the company posts the results of the first telephone call to the customer. This may read: "Well satisfied with air conditioning unit and installation, particularly with operating costs lower than expected. Contact in six weeks and give price on refrigerator."

Every 30 days thereafter, a new posting is added to the card until it is full. Then a new one is stapled to the original. All the cards are typewritten, which makes it possible for any salesman to read clearly what the preceding telephone result was. More than 2,000 such cards are on file.

After two years, the firm has found that its volume has been developed almost entirely from "using the user."

"We do use direct mail," Ramsour said, "sending out manufacturer folders and other stuffers, for the most part to customers who already have been sold either heating or air conditioning, and offering service, parts, special cleaning and inspection, etc."

Oddly enough, Federal Heating does not pay any of its satisfied-user "bird dogs" any commission whatsoever for tips on possible prospects, no credit on their own installation, gift appliances, etc.

Instead, the firm merely keeps up friendly, pleasant relations with its customers and bends over backwards to make any adjustment the customer mentions. In this way, it keeps good will at a high point.

Florida Association Votes To Affiliate with RACCA

CLEVELAND—The West Coast Air Conditioning Contractors Association of Florida, located in Tampa, recently voted unanimously to become affiliated with the national Refrigeration & Air Conditioning Contractors Association, it was announced here by Ray Kromer, executive vice president of RACCA.

"This makes a total of five new local associations that have become affiliated with RACCA National since April of this year, with interest and inquiries from other cities," Kromer stated.

He added that the programs and rejuvenated activity of RACCA "will undoubtedly double the number of member associations before Jan. 1, 1955."

To Cool Offices, Showroom In Auto Dealer's New Plant

CHARLESTON, S. C. — Fort Sumter Chevrolet Co. has begun construction of a new plant which will contain 56,000 sq. ft. of floor area.

The business office section will include a large general office, a series of private offices, and six closing offices for sales personnel. This section and the display room, the latter containing more than 2,700 sq. ft. of space, will be air conditioned.

SPECIALTY SELLING METHODS

Cashen Wins New Post of Torrington Sales Engineer

TORRINGTON, Conn. — Dudley B. Robinson, vice president of the Torrington Mfg. Co., air impeller producer, has announced the appointment of William E. Cashen of the Engineering Dept. to the new post of sales engineer.

Robinson cited "the rapid growth, during the past few years, of the industries we serve" as the prime reason for the creation of the new post, and said the move is designed to give heating, cooling, and ventilating appliance manufacturers prompt engineering assistance in their basic air-moving problems.

In addition to his new duties, Cashen will continue to be active in Torrington's product application laboratory and to advise the research and product development section of the Engineering Dept.

McLain & Dennis Charter

COLUMBIA, S. C.—McLain & Dennis Heating Co. here has obtained a charter from the secretary of state to engage in a heating and air conditioning business. Authorized capital stock is $20,000. Robert S. McLain is president.

Gustin-Bacon Appoints Muller Sales Manager For Pipe Insulation

KANSAS CITY, Mo. — Gustin-Bacon Mfg. Co., manufacturer of glass fiber insulations, recently announced the appointment of F. W. Muller as manager of G-B "Snap-On" pipe insulation sales.

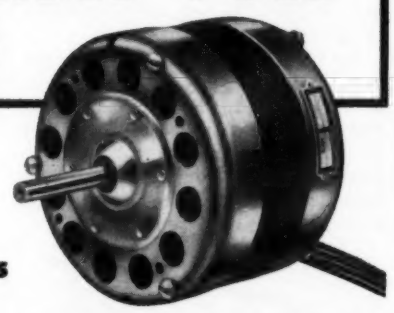
F. W. Muller

In the newly-created department, Muller will direct the company's national sales from its Kansas City headquarters.

G-B Snap-On pipe insulation is Gustin-Bacon's most recent addition to its expanding group of glass fiber insulating materials. The new product, made in cylinders with a single slit, possesses unique characteristics that enable it to be used on heated and cold piping.

Muller comes to Gustin-Bacon with 14 years' experience in the thermal insulation field. He was manager of high temperature sales for Armstrong Cork Co.

New LOYD SCRUGGS 6-POLE SHADED POLE MOTOR



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—Dan McKenzie, Biscayne Air Conditioning Co., Miami

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—Clyde L. Copp (left), Typhoon dealer in Tulsa, shown with satisfied customer, Perry Ward, restaurant manager

"My Typhoon District Manager helps me figure complex jobs competitively and profitably."

—Don Kissell (left), Los Angeles dealer, shown with Art Krell, Typhoon West Coast District Manager

"Trouble-free performance of rugged Typhoon units chalks up satisfied customers for me."

—Ernest W. Farr, Bell Refrigeration Corp., Cleveland

"A phone call to Typhoon and factory engineers iron out tough technical problems for me in jig time."

—Carl Muno, McCarty Bros. Equipment Corp., Chicago

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Obstacles Overcome!

One Well Furnishes Cooling Water, Another Takes It Away In Unusual Air Conditioning Job

TOPEKA, Kan.—In an unusual installation which provides cool comfort in the building of radio station KTOP here, one well furnishes cooling water and another takes it away.

The installation, which "does the work of a 10-ton system with a 6-ton unit," was made by Gray & Pavlick Heating Co., Topeka air conditioning contractor, after a long study of serious problems involved.

"When we were originally called in to estimate the cost of an installation, we found just about every obstacle in the way," C. B. Pavlick, partner in the firm, indicated.

"To begin with, the radio station is located well outside the city limits, where there are no water mains, no sewers, and no potential source of water, other than wells.

"Also, the building was exposed to broiling heat, being set up in the center of a broad, open field. Finally, with 50,000 watts of generating power in the station, there was a high, constant heat load, generated within the structure itself."

Nevertheless, Pavlick believed that he could not only do an efficient job of cooling the building, but likewise, insure operating economy as well. Where the building normally would require at least a 10-ton unit, he specified six tons, depending on the use of well water for condenser cooling. This would run at least 20° cooler than ordinary city water.

The well water aspect proved quite feasible, inasmuch as Topeka has a relatively high water table, and at temperatures at least 5° lower than that over other parts of the plains states.

In planning for the condenser cooling water supply, however, Pavlick found himself faced with still another obstacle. What to do with the cooling water after it had been passed through the condenser. Installation of a cooling tower was impossible due to building design, the presence of high antennas, support wires, etc.

In studying the problem, Pavlick came up with this idea: Since he was already taking the water from the ground, why would it not be practical to run off the waste into another well?

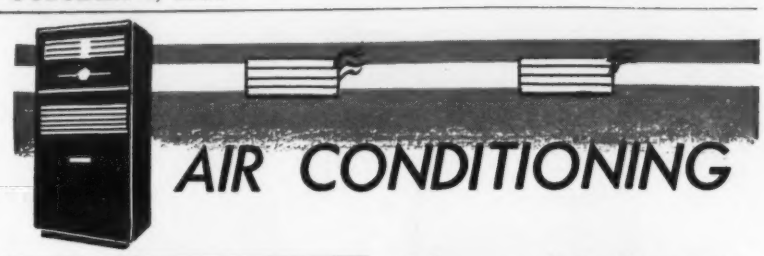
That proved to be the ultimate solution. In checking the underground water flow, Pavlick found that the water flowed from west to east. Therefore, two wells were drilled at the rear of the station, 12 ft. apart.

A well to the west is the "upstream" well and supplies all cooling water, through an ordinary 40-gal. house pressure water system installed in the basement. Waste water, in turn, is piped directly to the "downstream" well, flowing on gravity alone, with no problems in back-pressure.

The installation proved not only sound from a comfort standpoint but likewise economical, because it operates at costs far below those anticipated. The well water, at the condenser delivery point, is 20° cooler than could be expected from any other water source, and because of the low temperature, the thermostatically controlled pump operates a minimum number of hours per week.

In this way, the pump and wells will rapidly pay for themselves, as well as amortizing the entire cost of the air conditioning installation in four years, it was pointed out.

If desired, in the future planting of grass, shrubbery, and other landscaping, the condenser cooling water can be used for surface irrigating.



Auto Mechanics' Output Rises When Shop Gets Air Conditioning

DAYTON—If the success of one company's experiment is heeded, automobile mechanics of the nation will shortly welcome a valuable new addition to their working environment—air conditioning.

Already the mechanics of Oliver Motor Co., Tyler, Texas, are plying their trade in completely air conditioned surroundings. Do they enjoy working in controlled, 70° temperatures? Results indicate that they definitely do.

Prior to air conditioning its entire facilities this season, the Texas firm found it impossible to keep up with a heavy backlog of car repairs. Now the backlog has been removed and new jobs are being given immediate attention.

Oliver officials also report a substantial increase in business. In addition, applications have been received from skilled mechanics throughout the city who desire to work in an air conditioned shop.

The Tyler auto dealer this summer became one of the first completely air conditioned motor companies in the country. With showrooms and offices previously air conditioned, the installation earlier this year of additional Chrysler Airtemp central station cooling equipment extended similar working comfort to all repair areas, service shops, and the company's extensive parts department.

The fact that air conditioning increases worker efficiency was again illustrated as ailing autos began to move in and out of the repair shops at an accelerated rate.

Mechanics keep modern motors humming. Modern air conditioning now promises to keep the mechanics themselves humming.

Hokanson Gets Contract For Mobile Air Cooling

LOS ANGELES—The C. G. Hokanson Co. here, designer and manufacturer of specialized air conditioning equipment, has been awarded a contract for more than $500,000 from the Douglas Aircraft Co. for the design and manufacture of mobile air conditioners.

The mobile units are intended for air conditioning aircraft electronic equipment compartments during periods in which the aircraft engine is not in operation.

The Hokanson Co. claims to be one of the first to build mobile air conditioners in the United States and is currently designing and manufacturing units for radar equipment and guided missiles.

Fort Hayes Hotel, Columbus, To Cool 4 Additional Floors

COLUMBUS, Ohio — The Fort Hayes hotel here will be 70% air conditioned when the recently-let contract for the air conditioning of four more floors is completed, according to R. I. Griffith, manager.

Griffith added that the hotel will be 100% air conditioned within another year.

To be installed as an important part of the hotel's current improvement program, the air conditioning will allow individual control by patrons. The system is said to respond to outdoor conditions and anticipate changes before the indoor temperature is affected.

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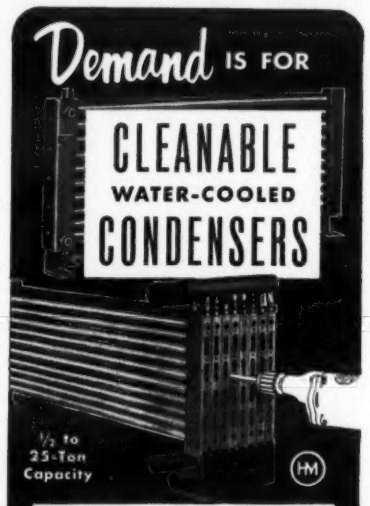

MORE EFFICIENT DOUBLE-TUBE COUNTER-FLOW DESIGN

"New unit" efficiency is always maintained with H & M water-cooled Condensers because they are *cleanable*—quickly, economically. Do as the industry does—demand nothing less, for the cost is no more. *Write for Catalog.*

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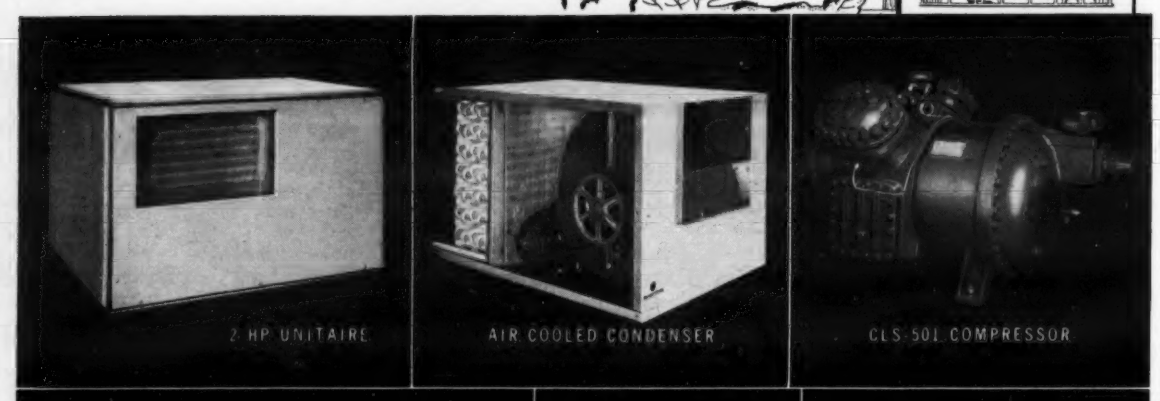

The new 2 Hp Comfort Cooler priced for mass sales to shops, offices and homes. Ideal as a price leader to attract many prospects for your sales force, this unit is also available in 3 and 5 h.p.

The PRECIPITRON. This is an electronic air cleaner that gives indoor relief from allergies (a market in itself) as well as simplified housework and drastic cuts in redecorating expense.

Dealers where water is scarce or expensive will get new retail "leverage" with Westinghouse Air Cooled Condensers.

And the new line includes a smart packaged unit for stores and offices—as well as the Westinghouse Heat Pump for modern all-electric living.

For details on these units, as well as Westinghouse air conditioning compressors and equipment for field-assembled systems, look in your Classified Telephone Book today for the name of your nearest Westinghouse Air Conditioning Distributor. Or write Air Conditioning Division, Westinghouse Electric Corporation, Hyde Park, Boston 36, Mass.

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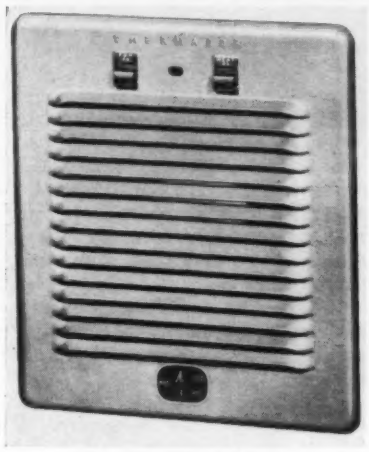


Thermador Wall Heat Fan.

Low Wattage Wall Heat Fan Bowed by Thermador

——KEY NO. D-1010——

LOS ANGELES—A low wattage wall heat fan with separate switches for fan and heat located near the top of the heater was introduced recently by Thermador Electrical Mfg. Co. here.

A neon light glows when the heater is working. The unit has a louver grille which forces the flow of warmed air downward to warm a room from the floor up. Resistance coils are Nichrome wire. Fan action induces constant air flow over the coils to prevent oxidation and deterioration through red glow. An even "black heat" is maintained.

The heavy-duty motor is a single-phase induction type and the four-blade fan is dynamically balanced.

A built-in 25-amp. thermostat is available. The heater is offered in a choice of bronze, white enamel, or stainless steel finish.

Humidistat Operates Humidifier, Dehumidifier

——KEY NO. D-1011——

JAMAICA, N. Y.—An automatic control to operate electrically powered humidifiers and dehumidifiers up to 1/6 hp. is being manufactured by Bendix Aviation Corp. and marketed by the Abbeon Supply Co. here.

Called the Bendix-Friez automatic humidistat control, the instrument operates in the same manner as a room type thermostat. It hangs on the wall and plugs into the wall outlet and the humidifier or dehumidifier.

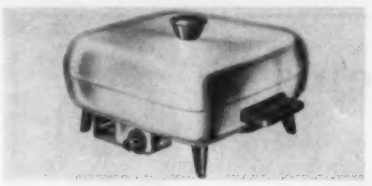
When the instrument is used with dehumidifiers and the moisture content of the air rises above the set level, the control turns on the dehumidifier. When the moisture content drops below the set level, the control turns off the dehumidifier. When used with a humidifier, it works just in reverse.

The instrument is priced at $15, equipped with the standard dial. The price is slightly higher when equipped with a dial graduated in percentage of relative humidity.

Fry-Pan's Water-Sealed Heat Unit Can Be Dunked

——KEY NO. D-1012——

BUFFALO—An electric frying pan with water-sealed automatically controlled heat unit that is completely immersible in water has been introduced by the Markel Electric Products, Inc. located here.



Called the "Markel-Maid electric fry-pan," it is 11 in. sq. and 1½ in. deep. All joints are permanently sealed with newly developed materials which withstand high temperatures and provide positive sealing against any liquid, grease, soap, detergent, or alkali, the company said. It added that patent was pending on the water-sealed heat unit.

An automatic thermostat controls the water-sealed heating element embedded in cast aluminum. It produces exactly the correct heat and maintains it, the company claims. Correct temperature can be dialed by a little knob at the front of the unit. Twenty-four heat control recipes are printed on the casserole handles, with the correct temperature setting for each.

After the correct temperature has been set, the fry-pan will reach cooking heat in two to three minutes, the company says. Shortening can be applied almost immediately after plugging in. To keep foods hot after cooking, just set the dial to "Warm."

Outside of the Markel-Maid fry-pan is highly polished aluminum. The inside is a sunburst brushed aluminum effect. Casserole handles, high legs, and dial are made of black heat-resistant plastic. The company says the fry-pan is safe for use on finest linens and table tops.

A polished aluminum cover is available for covering foods during or after cooking. Guaranteed for one year against defective materials and workmanship, the fry-pan is priced at $19.95, complete with removable cord set.

Webber Chamber Designed For High Volume Testing

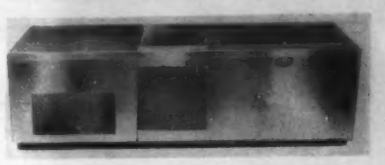
——KEY NO. D-1013——

INDIANAPOLIS — A chest-type test chamber for high volume production testing that is capable of fast heat removal and temperature pull-down has been introduced recently by the Webber Mfg. Co. here.

It contains two compartments of 1-cu. ft. capacity each. It has a temperature range of -100° F. to 200° F. with a gradient temperature variation of less than ½° at any point within the chambers.

The prototype unit was designed, engineered, and constructed for a branch of the armed forces for production line testing of electronic equipment, Webber declared.

A special solenoid type of control is used in conjunction with a patented refrigerating system. A



proportioning temperature control instrument assures complete and accurate control of temperature.

Accelerated temperature changes are accomplished through a 500 c.f.m. propeller fan system in each chamber which recirculates the air through the chamber and over the refrigeration coils or heating elements, changing the air 500 times a minute.

Motor for the fan is externally mounted for servicing. Housings are designed for vapor seal, silicone grease lubrication, and minimum thermal conductance.

The heat cycle is applied through hermetically sealed, moistureproof, low density electrical elements.

The test chambers may operate independently of each other even at extreme temperature differences, the company declared, though both operate off the same refrigeration unit.

Operations are controlled from a panel adjacent to the unit with standard automatic proportioning controls.

Stainless steel construction is used throughout. Test chamber is standard in copper though other materials are optional. The unit measures 30 in. high, 24 in. wide, and 96 in. long. It is self-contained and air cooled.

Information Center

For *more information* on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

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The 2 and 3 H.P. water chillers have a hermetically-sealed motor and compressor assembly. You can get a 20-gauge steel jacket for the chiller, too. It comes in a handsome Forge Red color, and has a removable front cover.

Big American-Standard Chillers have low-speed compressors for extra quiet operation.

These new chillers are just the thing for a cold water source for all air conditioning systems. For more information about the new packaged water chillers or the complete Remotaire System, fill out and return the attached coupon to the **American Radiator & Standard Sanitary Corporation,** Pittsburgh 30, Pennsylvania.

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Refrigeration Problems

and their solution

by Paul Reed

For Service and Installation Engineers

Paul Reed

A Plant for Freezing And Storing Foods (2)

In the last previous instalment of this column was published a digest of a letter with memorandum of specifications and questions pertaining to a proposed frozen food plant, from a reader in a very humid, tropical country. If and when this plant is built, it will be the first in that country for the processing, freezing, and storage of frozen foods.

The following is a digest of our reply:

Your letter and the accompanying memo of specifications and questions were very interesting, for they pose some unusual problems.

This is a pioneering venture, and you and your customer will undoubtedly encounter special problems arising from conditions peculiar to your country, its economy, its people and their food customs. These special problems will not only influence the selection of the original equipment, but they will also bring about divergencies in processing and operating methods from what we would expect as normal in this country.

It is therefore going to be difficult for us, several thousands of miles away and having only a meager knowledge of your local conditions, to do more than give you generalizations, which you will have to adapt to your specific problems.

It is going to require a great deal of inquiry on your part, close attention to a great amount of detail, and the application of careful judgment. However, it represents quite a challenge, and should prove very interesting and, in the long run, quite lucrative.

Although in your memorandum you referred to an "Air Lock," you did not mention a pre-cooling room. Perhaps this was merely an oversight, for certainly the plant should have a room into which the fresh food can be pre-cooled before being placed in the freezers. A pre-cooler is necessary for several reasons:

(1) The foods can be cooled down to just above freezing much more economically in a pre-cooler held at about 36° to 38° F. than in the freezers held at -25° F.

(2) Your customer will find that, somewhere in the plant, he will need a storage room for fresh foods.

(3) A pre-cooler is particularly necessary in your very humid climate, for excess moisture from the humid outside air can be removed much more easily and economically, and defrosting the evaporators can be done much more simply, in a pre-cooler at 36° to 38° F. than in a freezer at -25° F. or even in the frozen food storage rooms at -10° F.

KEEP WALL AREA TO A MINIMUM

A convenient and economical arrangement might be to have two storage rooms with a freezer room between them, located on each side of, and entered from, the pre-cooler room. This would probably leave a space behind each freezer room which could be utilized for a machine room.

If the building is to be of flat room construction, the roof should be sprayed, or a ventilated attic space provided.

In addition to the insulating value of the exterior masonry, 8 in. of sheet cork or its equivalent should be sufficient insulation for the floors, ceilings, and outside walls of the storage rooms. Four inches should be enough for the partitions between the storage rooms and the pre-cooler and the freezer rooms. Painting the outside walls white will help by reflecting some of the radiant heat.

INSULATION

Sheet cork is certainly suitable. In fact some engineers will scarcely consider any other insulation for construction such as yours. Nevertheless, there are other excellent insulations, including the one you mentioned—glass fiber. The selection is chiefly a matter of relative insulating value and erection requirements against original and maintenance costs.

Regardless of what insulation you choose, you should give exceptional attention to sealing it against moisture penetration. The vapor seal is very important here in the United States where a design wet-bulb temperature above 78° F. is exceptional. In your climate, where 83° to 85° F. wet bulb can be expected, prevention of moisture migration through the insulation is just that much more important.

You might consider a glass foam insulation, for if the joints are well sealed, it is highly impervious to moisture penetration. It has a lower insulating value than cork (about .40 B.t.u./sq. ft./° F.) so about 35% greater thickness than cork must be used for the same insulation value of the wall.

CENTRAL SYSTEM OR SEPARATE COMPRESSORS?

The decisions as to the refrigerant, and the type of system, are tied inextricably with one another. When you decide whether to use a single central system or several condensing units, you will have taken a big step in selecting the refrigerant. Each method has its advantages and disadvantages.

The large central system usually has the advantage of lower first cost of the equipment and of its installation; assuming that direct expansion will be used. If direct expansion evaporators are in multiple on one condensing unit, the maintenance cost would probably be lower also.

Moreover, if electric current outages are frequent and of long duration, a single stand-by gasoline engine would favor the single unit over separate units for which several small gasoline engines would have to be provided, at considerable expense; and connecting them to the separate compressors would be inconvenient, expensive, and time-consuming.

Three temperatures will have to be maintained: -25° F., -10° F., and about 36° to 38° F. To do this on one compressor with direct expansion evaporators will require a rather complicated system of controls; and worse, will mean that the operating suction pressure will be governed by the -25° F. freezer rooms. Thus, refrigeration for the entire system would be based on an uneconomical low suction pressure.

A circulating brine system would give more flexibility of temperatures and simplicity of control, but would be more expensive in first cost, operating cost, and maintenance cost.

And finally, as brought out by you, a break-down of the one large compressor, for whatever reason, would leave the entire system inoperative; a serious consideration for your customer.

It is our opinion that separate condensing units for the various rooms would be preferable for this plant; although, the four storage rooms could safely be operated by two condensing units—two storage rooms on each unit.

We do not recommend that the condensing units be "cross-connected," for our experience has been that oil difficulties are usually encountered, often resulting in compressor damage.

The condensing units for the -10° F. storage rooms should be the low temperature type with their motors loaded at evaporator temperatures of about 0° F.

The condensing unit for the pre-cooler should be the medium temperature type with its motor fully loaded at evaporator temperatures of about 25° to 30° F.

TWO-STAGE UNITS FOR FREEZERS

Although it would not be economical, you could operate the freezer rooms on single-stage condensing units. However, consider:

For a -25° F. freezing temperature, the freezer evaporator will have to be about -35° to -40° F. Assuming a condensing temperature of as low as 100° F., the ratio of compression would be about 13 or 14 to 1. A ratio of compression of 10 to 1 is usually considered as about the maximum allowable per stage.

In our opinion, you would be well advised to use two-staging for the freezer rooms, unless the cost of electric current is so low that inefficient operation is not objectionable.

There is some advantage in operating cost for the compound compression type of two-staging, but the cascade system is much more simple, and permits the use of two refrigerants, one especially suited for the low temperature stage and the other for the higher temperature stage.

We believe, therefore, that the cascade system would be more suitable for the freezer rooms.

(To Be Continued)

"It sure gets rid of the gook!"

It in this case is "Virginia's" new degreasing solvent sold under the trade name of Virginia No. 10. Made expressly for refrigeration, electrical and automotive use, No. 10 fills the need for an effective degreaser that can be used in safety.

Whatever you expect a degreaser to do, Virginia No. 10 does it—like a charm. Removes oil, grease and grease-bound dirt in a flash. Dries quickly, is noncorrosive and, unlike some solvents, will not rust machined parts.

But Virginia No. 10 is much more than a good degreaser. It has a dielectric strength of 20,000 volts. The significance of this is it will not attack electrical insulation or leave any current-carrying residues. Its flammability hazard is very low. And you can stand a concentration of 200 parts per million for hours without harm—it's about 8 times less toxic than carbon "tet."

Virginia No. 10 is available in 1 gallon factory-filled cans from your favorite wholesaler. Or write Refrigeration Division, VIRGINIA SMELTING CO., Dept. 63, West Norfolk, Va.

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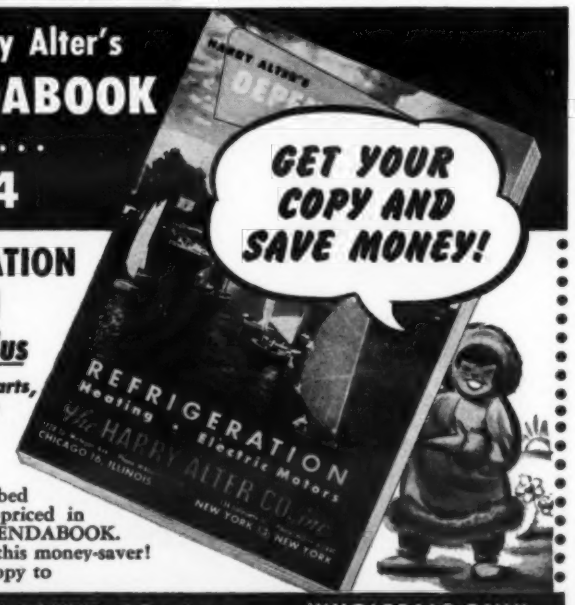

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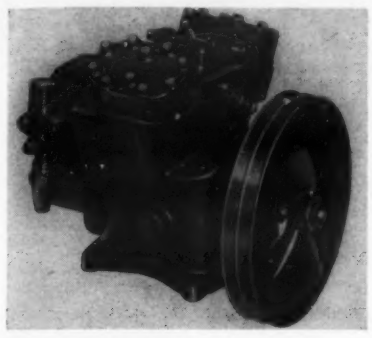

Tecumseh--

(Concluded from Page 1, Col. 4)

case, very little being circulated through the system.

The new model has obsoleted Tecumseh compressor models VFP and VFPH. No more of these models will be shipped either in production or service.

Development of the VFT compressor has been under way for some months, and has been put into production only after extensive laboratory and field testing, say Tecumseh officials.

Principal design feature is the "built-in" low-side oil separator as a part of the compressor crankcase. This takes the form of a cast-in "sump" connecting to the crankcase.

The opening to the crankcase is through a large hole at the normal oil level, which permits return of any oil circulated during the refrigerating cycle. It is said that the amount circulated will always be small. At the top of the sump, well above the oil level, is a channel opening into the suction chamber.

The sump is, in effect, a chamber in which the oil remains quiet, in spite of the turbulence in the crankcase itself, permitting foam to break rapidly. No foam enters with the suction gas, it is claimed.

Among other design improvements claimed for the VFT is a perfection of pressure lubrication without moving parts. An oil reservoir is cast in above the rear shaft bearing. The shaft is rifle drilled through to the seal end. Laterals feed oil under pressure created by the shaft rotation to both main bearings, the connecting rods, and the seal chamber. The connecting rods are rifle drilled and feed oil to the wrist pin.

All parts of the reciprocating system are said to be constantly fed oil under pressure in this system, which is in essence the one that has been used on smaller Tecumseh conventional compressors for some time.

The VFT is made with a new seal, which is said to be highly resistant to heat, oil, and refrigerants.

Flywheel of the new model is cast with fan blades instead of spokes. In operation, this directs a blast of air over the compressor body and seal chamber, a function that is important with high speed operation.

O. A. Sutton Consents to FTC Order on Fan Ratings

WASHINGTON, D. C. — O. A. Sutton Corp., Wichita, Kan., has consented to entry of a Federal Trade Commission order prohibiting false and misleading advertising of electric ventilating fans.

The consent order is incorporated in an initial decision filed by Hearing Examiner Abner E. Lipscomb. This is not a final decision of the commission but is subject to commission review.

In a complaint issued June 18, 1954, the commission charged misrepresentation of the ventilating capacity of the Vornado "Turnabout" window fan.

Under the consent order, Sutton will stop representing the ventilating capacity or ventilating performance of its fans to be greater than it actually is.

Specifically, the order forbids the use of a numerically-expressed rating, or any other statement concerning capacity or performance, which is in excess of the amount of cubic feet of air per minute that the fan can, under ordinary operating conditions, draw through its blades into or away from any place to be ventilated.

In consenting to the order, the company neither admitted nor denied any violation of law. It waived hearings and other procedural steps, as well as its right to contest the validity of the order.

RCA Plans--

(Concluded from Page 1, Col. 5)

said RCA's future plans "will depend on what happens."

Asked later if his company is interested in acquiring Thor Corp., he replied that nothing has been discussed and that he had no idea whether or not such discussions would take place.

Peerless Buys Building; To Expand In Coil Field

CHICAGO—Peerless of America., Inc., now at 1501 N. Magnolia Ave. here, has purchased an additional factory containing 67,000 sq. ft. on 255,000 sq. ft. of land, at 5830 N. Pulaski Rd., Chicago.

Officials at Peerless stated this facility would be used for expansion of its operations in the air conditioning and refrigeration field.

The company expects to move its main offices as well as its production machinery into the new location on Oct. 15. The present factory will be maintained for the production of special parts and custom built refrigeration and air conditioning components.

compare this Warren two-decker **Super Merchandiser!**

72 qt. cartons or 49 doz. eggs per lineal foot!

A SUPER SALESMAN FOR DAIRY PRODUCTS!

The two-decker *Super Merchandiser* is new . . . yet its money-making merits are already proved in significant independents and a number of the country's largest chains. Its capacity is terrific! 49 dozen eggs or 72 quart cartons of milk per lineal foot on the lower display deck, yet the upper deck for impulse sales is easily accessible—has adjustments, too, for heavy and light loads. Write now for complete details.

SEE THIS FIXTURE DEMONSTRATED IN BOOTHS 25 & 26, NAFC CONVENTION, WALDORF ASTORIA, OCTOBER 10-13

DD installation with 58" Merchandising Canopy is shown. Also available with 69" Merchandising Canopy with vertical mirror. 8- & 11-ft. lengths in beautiful, profitable *multi-case construction.*

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The Big Inning!

Scattered hits produce occasional runs in baseball—but it's hits in clusters that bring home the runs in bunches to win the ball game. Champions play for The Big Inning.

Smart advertising buyers operate that way, too.

They don't scatter their shots—they bunch them in the publication with *readers* who can and *do buy*. They too, play for The Big Inning.

Mere circulation totals aren't the answer. Not "how many", but "who" is of more importance. If you are selling Cadillacs, advertising to a million janitors could be wasteful.

Advertising buyers who invest wisely read the publication itself—get to know its editorial content and the purpose it serves.

They find the "reason why" a publication attracts so many *readers* and swings such effective influence with its subscribers.

* * *

The "Big Inning" publication for air conditioning, commercial refrigeration, household refrigeration, freezers, component parts, and materials.

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Key to WATER COOLER - ICE MAKER SALES . . .

FILTRINE "Taste-Master" PURIFIER

Stop service calls . . . keep out rust and sludge . . . open new doors to sales acceptance!—with coolers, ice-makers, sell "Taste-Master"!—checks chlorine, traps sediment; promotes service-free satisfaction with all water processing appliances. Write—

Filtrine MANUFACTURING CO. BROOKLYN 38 • N. Y.

"Water Coolers and Filters for 40 Years"

MISSING SOMETHING?

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Use Key No. for fastest service.

Ben-Hur Names Zickert Distribution Manager

MILWAUKEE—E. F. Jackson, sales manager of Ben-Hur Mfg. Co., has announced the appointment of Ralph Zickert as distribution manager.

Zickert will have the responsibility of closer contact between Ben-Hur distributors and the home office as well as assisting Jackson in various administrative duties in sales.

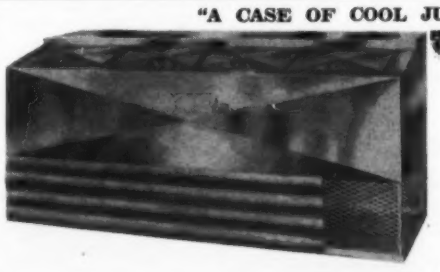
Zickert has been connected with Ben-Hur since 1947, as midwest district sales manager, and more recently as manager of Ben-Hur's eastern sales district. He will make his headquarters in Milwaukee.

To Air Condition New Montgomery Hospital

MONTGOMERY, Ala. — Construction is expected to start in November on a new $1,500,000 air conditioned St. Margaret's hospital here.

It will be built on the present grounds directly in front of the old hospital, facing Adams St. The new hospital will contain 94 private rooms.

"A CASE OF COOL JUDGMENT"



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United Frigurator Engrs.

MENOMINEE, MICH.

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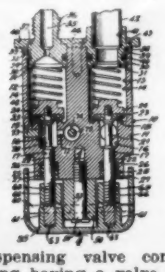
PATENTS

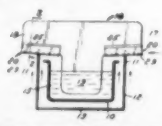
Week of May 11 (Concluded)

2,678,064. MIXING AND DISPENSING VALVE. Clyde A. Brown, Luck, Wis., assignor, by mesne assignments, to Selmix Dispensers, Inc., a corporation of New York. Application Sept. 2, 1948, Serial No. 47,476. 4 Claims. (Cl. 137—636.)



1. A dispensing valve comprising, a valve housing having a valve bore therein, a valve element axially slidable in the valve bore and extending out from the valve housing, an actuator carried by the end of the valve element, a handle pivoted to the valve housing for movement about an axis substantially perpendicular to the axis of the valve element, and a pair of pins carried by the handle, one on each side of the pivoting axis of said handle, for engaging the actuator when the handle is moved in either direction about its pivot for sliding the valve element.

2,678,235. EVAPORATOR PLATE ANTI-DRIP CHANNEL. Milton Perlman, Detroit, Mich.



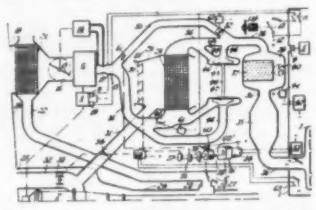
A humidifier comprising an evaporator pan, a plurality of evaporator plates, each of T shape, means for supporting the plates in the pan so that the stem portion of each plate is within the pan but is spaced from its sides and so that the cross arm of each plate, providing two lateral portions, is spaced above and laterally outside the sides of the pan, each lateral portion of each plate removably supporting on its lower edge a channel shaped drainage member whose inner end is within the adjacent side of the pan and whose outer end is adjacent the outer edge of the associated plate, each member being separate and independent of the plate supporting means, each member having a bottom and two vertical sides formed with contractile spring torsion so as to grip the plate so as to be supported solely thereby with spring grip and friction therewith, the upper edges of each member being spaced from the sides of the plate to form with them troughs for draining water on the sides of the plate back into the pan, the lower portion of each member being spaced from the lower portion of the plate supporting it to provide a lower trough in the member.

2,678,104. RESILIENTLY MOUNTED ROTARY FAN. Raymond C. Davis, Dayton, Ohio, assignor to General Motors Corp., Detroit, Mich.

A driving mechanism for preventing transmission of sound vibration between a driving member and a driven member having fan blades attached thereto comprising in combination; a rotatable metal driving plate, a driven metal plate having the blades of a fan connected thereto and adapted to be driven by said driving plate and parallelly spaced to and concentrically located with respect thereto, each of said plates having a series of spaced registering apertures disposed symmetrically around a common axis of rotation, and a plurality of resilient blocks in said apertures, said blocks having a generally larger cross section than said apertures and having two spaced groove portions substantially of the same cross section as said apertures and of a size to be forced laterally into said registering apertures of each plate for seating said plates therein and maintaining said plates in a spaced parallel relation, said blocks forming the sole connection therebetween whereby said driving plate transmits its rotation to said blade carrying driven plate only through said blocks and thereby substantially preventing the transmission of sound vibrations therebetween.

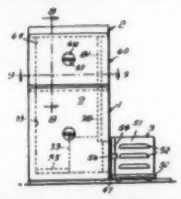
Week of May 18

2,678,542. AIRCRAFT CABIN AIR-SUPPLY PLANT. Francis Patrick Stanton, Bristol, England, assignor to The Bristol Aeroplane Co., Ltd., Bristol, England, a British company.



1. A cabin air supply plant for aircraft having a main compressor comprising a refrigerator unit comprising a cooler, a compressor and a turbine, an air inlet duct from the main compressor and having a branch leading to said compressor and a branch by-passing said compressor and leading to said cooler, an air outlet duct from said cooler and having a branch leading to said refrigerator turbine and a branch by-passing said refrigerator turbine, a separate valve in each by-pass branch, means for opening and closing said valves together, an air conduit from said compressor to said cooler, and air conduit means connecting said air outlet duct branch by-passing said refrigerator turbine and the outlet of said turbine to the cabin.

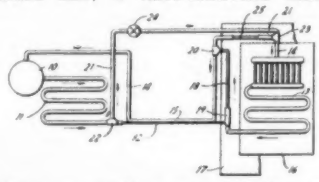
2,678,544. PORTABLE ELECTRIC REFRIGERATOR. Robert G. Sheidler and Truman B. Clark, Mansfield, Ohio, assignors to The Tappan Stove Co., Mansfield, Ohio, a corporation of Ohio.



1. A refrigerator comprising a bottom section having a bottom wall, a rear wall, two side walls and a door defining a storage compartment open at the upper end thereof, a top section removably secured to the upper end of said bottom section in position to close the upper end of said storage compartment, partitions in said storage compartment defining a chamber at a lower corner of said storage compartment, an air inlet from said compartment into said chamber, an air outlet from said chamber into said storage compartment, a refrigerating mechanism including an evaporator and a fan, said evaporator and fan being disposed within said chamber and said fan being operative to induce a flow of air from said compartment into said chamber through said inlet and past said evaporator and out through said outlet back into said compartment, a plurality of trays disposed in said storage compartment, and means by which said trays are removably supported in vertically spaced relation in said storage compartment with the peripheral edges thereof spaced from the bounding walls of said compartment to provide uninterrupted paths for the downward flow of air along the inner faces of said bounding walls.

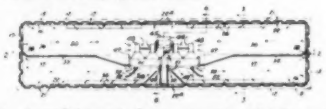
2,678,545. DEFROSTABLE REFRIGERATION SYSTEM. Elmer W. Kearfoss, Jr., Philadelphia, Pa., assignor to Philco Corp., Philadelphia, Pa.

1. Defrostable refrigeration apparatus comprising, in combination: a compressor; a condenser; a restrictor; an evaporator; conduit means including suction and feed lines so interconnecting said compressor, condenser, restrictor and evaporator in series flow circuit that refrigerant normally flows from the discharge side of said compressor through said condenser and said restrictor to the inlet side of said evaporator, the refrigerant thereafter returning from the suction side of said evaporator to said compressor through said suction line; a valve-controlled conduit



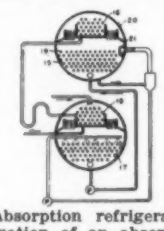
having one portion communicating with the discharge side of said compressor and another portion communicating with the suction side of said evaporator, said conduit by-passing said restrictor whereby, in response to opening of said valve, the aforesaid normal flow is modified and at least the major portion of the gaseous refrigerant delivered from the discharge side of said compressor flows toward said evaporator through said conduit and without passing through said restrictor, at least a portion of said suction line and said evaporator comprising parallel refrigerant flow paths under the aforesaid modified condition of flow, and said suction line path presenting greater restriction to the flow of gaseous refrigerant than the path through the evaporator presents to the flow of condensed refrigerant, to insure that a substantial portion of the gaseous refrigerant flowing through said conduit passes into and through said evaporator for condensation therein; and means comprising a continuously open passage communicating with the said inlet side of said evaporator, said passage also communicating with the suction side of said compressor to provide for return to the compressor of refrigerant condensed within the evaporator under said modified condition of operation.

2,678,546. METHOD AND MEANS FOR REGULATING TEMPERATURE IN TRANSPORT VEHICLES. Allan N. Campbell, Montreal, Que., Can.



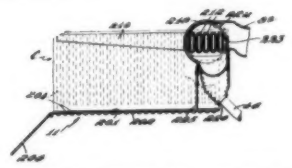
1. A refrigerated transport vehicle comprising a body including a floor, side and end walls and a roof enclosing a load space in combination with the cooling element of a mechanical refrigerating unit, said element being located close under the roof and approximately midway between the ends of said vehicle; and means for establishing a current of air from said air cooling element flowing exclusively downwardly in the side and end walls of one transverse half of the vehicle, across the floor beneath the load space, and exclusively upwardly in the side and end walls of the other transverse half of the vehicle, returning to said cooling element.

2,678,547. MEANS FOR MAINTAINING LIQUID LEVEL IN HEAT EXCHANGE APPARATUS. Carlyle M. Ashley, Fayetteville, N. Y., assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Original application Feb. 3, 1948, Serial No. 6,063, now Patent No. 2,581,466, dated Jan. 8, 1952. Divided and this application Nov. 15, 1951, Serial No. 256,520.



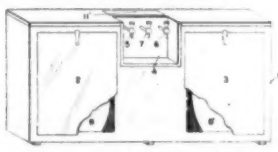
In an absorption refrigeration system the combination of an absorber, an evaporator, a generator and a condenser disposed in a closed circuit, a shell containing the generator and condenser therein, with the condenser being placed above the generator, a coil in the generator through which a heating medium is passed, a pool of solution in the generator surrounding at least a portion of the coil, ebullition of the solution occuring during operation of the system thereby increasing the solution level in the generator, a chamber in the shell to receive excess solution when the solution level in the generator reaches a predetermined maximum, and a line connecting the chamber to a strong solution line of the system.

2,678,548. TWO-FLUID REFRIGERATION SYSTEM. Lyman F. Whitney, Boston, Mass., assignor, by mesne assignments, to Stator Co., a corporation of Massachusetts.



1. Refrigerating apparatus comprising a compartment having side and bottom walls formed with intercommunicating passages, inlet and outlet ducts communicating with said passages, an enclosed evaporator in said compartment in heat transfer relation to its upper part, said evaporator containing a liquid primary refrigerant spaced from its upper wall so as to provide a liquid-vapor interface, and a conduit extending through said evaporator at a level contiguous to said liquid-vapor interface, one end of said conduit being connected with the inlet duct and the other end of said conduit being connected with the outlet duct so as to provide a continuous closed circuit, said circuit containing a secondary refrigerant adapted to circulate in response to a temperature differential between said liquid-vapor and the interior of said compartment, thereby transferring heat from the latter to said interface.

2,678,549. BEER COOLING AND DISPENSING APPARATUS. Harold B. Campbell and Alvin N. Bloom, Philadelphia, Pa., assignors to Uniflow Mfg. Co., Erie, Pa. Application Oct. 27, 1949, Serial No. 123,806. 4 Claims. (Cl. 62—141.)



1. A beer cooling and dispensing apparatus comprising a casing of substantially rectangular cross-section both horizontally and vertically, a compartment for a beer keg at each lateral end of said casing, a recess provided centrally of said casing between said compartments, a container for refrigerator water behind said recess, said container being provided with two taps, one for each beer keg, two relatively long pipes, each pipe connecting one of said kegs to one of said taps, a common conduit surrounding the major portion of said pipes, means for forcing beer from said kegs through said pipes to said taps, and means for forcing refrigerated water from said container into and through said conduit and about said pipes, the direction of flow of the refrigerated water being opposite in direction of that of the beer.

(To Be Continued)

Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request **to the purchasing officer under which the purchase is listed** in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date.

DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices.

Invitations for Bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q" or, if numbered, the number will be followed by the letter "Q."

Description	Quantity	Invitation No.	Opening Date
General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pennsylvania			
Fan desk portable oscillating direct drive guarded adjustable. Fed. Spec. W. F. 101A, Amend IIII.	5860 ea.	(155-283-55-B)	20 Oct 54
Middletown Air Materiel Area, Olmsted Air Force Base, Middletown, Pennsylvania			
Gas, Freon 12.	240000 lbs.	(36-600-55-25-PR-22036)	7 Oct 54
Gas, Freon 22.	50000 lbs.	"	"
Internally cleaning cylinders as required, each.		"	"
Steaming and drying of cylinders as required, each.		"	"
Painting cylinders as required, each.		"	"
Perform minor repairs, as required, each.		"	"
Officer in Charge, Navy Purchasing Office, Washington, D. C.			
Complete coolant system with pump and motor condensing unit for:	1	(IFB-600-432-55)	14 Oct 54
Air Conditioning Plant 3 point 8 ton capacity for operation on 440 volt, 3 phase 60 cy. power supply, per spec. MIL-R-16743-B dated 21 Oct 1953 and amendment No. 1 dated 5 April 1954. Note: the material called for under this specification is a type of the Navy Qualified Product List.			

GENERAL SERVICES ADMINISTRATION

Description	Quantity	Reference No.	App. Bid Date
General Services Administration, Business Service Center, 575 U. S. Courthouse, 219 S. Clark St., Chicago, Illinois			
Refrigerators Fed. Spec. AA-R-211C.	20 ea.	CHD-1064	12 Oct 54
Low temperature cabinets.	16 ea.	CHD-1064	12 Oct 54
Electric water coolers Fed. Spec. OO-C-566c.	322 ea.	CHN-875	12 Oct 54

CONTRACTS AWARDED THROUGH SEPT. 28

Ships Parts Control Center, Naval Supply Depot, Mechanicsburg, Pa.

Repair parts for refrigeration and air conditioning.—3535, $38,342.—York Corp., 1616 Walnut St., Philadelphia 3, Pa.

Repair parts for air conditioning and refrigeration equipment.—2610, $31,582.—Frick Co., 320 Broadway, Waynesboro, Pa.

Repair parts for air conditioning and refrigeration.—9145, $27,555.—Carrier Corp., 300 S. Geddes St., Syracuse, N. Y.

Repair parts for rotary and centrifugal pumps.—8034.—262,629.—Dravo Corp., 1483 Suburban, Station Bldg., Philadelphia 3 Pa.

Public Works Office, Eleventh Naval District, San Diego 32, California

Cold storage building at the U. S. Marine Corps Recruiting Depot, San Diego, Calif. NOy-28965.—Job, $399,923.—Mr. T. A. Stanfield, 2933 Fenelon St., San Diego 6, Calif.

U. S. Navy Purchasing Office, 180 New Montgomery St., San Francisco 5, Calif.

Refrigerators (Frigidaire brand) (220-3191-P5-Q).—168 ea., $28,806.—Frigidaire Sales Corp., 1250-53rd St., Oakland, Calif.

Corps of Engineers, U. S. Army, Office of the Division Engineer, New England Division, 857 Commonwealth Ave., Boston 15, Mass.

Construction of central heating plant at Otis Air Force Base, Falmouth, Mass. Eng.-19-016-55-12.—Job, $292,796.—Theodore Loranger & Sons, 404 Nash Rd., New Bedford, Mass.

General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pennsylvania

Ranges, electric (Inv. No. IFB-155(3)-49-55).—50 ea., $36,250.—General Electric Co., by Hotpoint Co., 227 S. Seeley Ave., Chicago 12, Ill.

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We periodically check our files to expand this service and request all qualified representatives (except those who have written within the last six months) to send us the following information today on their own letterheads:

1. Complete name of company or individual, address, and phone number.
2. Lines and products now carried (not necessary to list manufacturer represented).
3. Lines and products being added or interested in adding.
4. Territory covered by states, parts of states, or countries.

Please send the above information to:

AIR CONDITIONING & REFRIGERATION NEWS
BOX RP-A, 450 W. FORT ST., DETROIT 26, MICHIGAN

Pittsburgh Plate Glass Names Batenburg, Dittmer, and Park

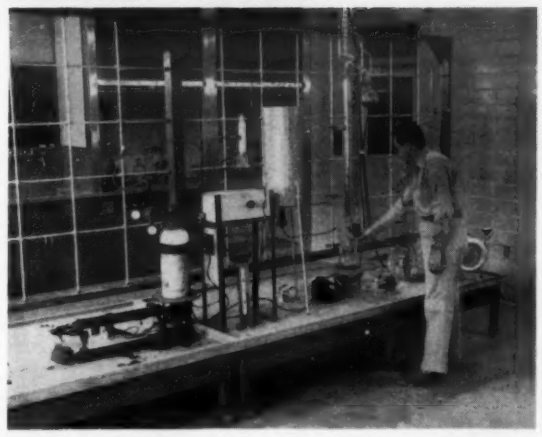
PITTSBURGH—Appointment of Michael J. Batenburg as director of information services for Pittsburgh Plate Glass Co. has been announced by Harry B. Higgins, president.

Also announced were the appointments of Richard W. Dittmer to the newly-created position of manager of public relations, and Norman L. Park as manager of publications.

Batenburg will be in charge of the company's public relations, publications, and advertising. In this capacity, he succeeds Guy J. Berghoff who recently was appointed assistant to the vice president, Merchandising Div.

Batenburg joined the company in 1939 and in 1953 was appointed general advertising manager. Dittmer has been with the firm since 1949 and Park since 1947.

DEDICATION of General Chemical Div.'s new research laboratory was held recently in Morris Township, N. J. Among those attending were, from left to right: M. M. Biddison, president General Chemical Div.; F. J. Emmerich, president Allied Chemical & Dye Corp.; and Dr. J. H. Pearson, director General Chemical Research Laboratory.



WILLIAM KELSO, research chemist, operates an experimental setup in the "Genetron" process development section of the $2,000,000 laboratory.

'Genetron' Producers Dedicate $2 Million Laboratory To Expand Research Program

NEW YORK CITY — General Chemical Div., Allied Chemical & Dye Corp., producer of "Genetron" refrigerants, recently dedicated its large new research laboratory in Morris Township, N. J.

Built at a cost of two million dollars, the new laboratory is reported to be one of the most extensive and completely equipped industrial research laboratories in the New York area.

According to a company spokesman, the new laboratory will permit General Chemical Div. to expand and intensify its diversified laboratory research program in industrial, scientific, and agricultural chemical fields. It replaces the division's Laurel Hill, Long Island, N. Y. laboratory.

The laboratory has been designed and especially equipped for conducting intensive studies of "Genetron" organic fluorine compounds which General Chemical describes as "the most important products of its current research."

Particular emphasis is placed on the fluorinated hydrocarbon group of refrigerants—long the mainstays of the refrigeration industry. A number of the "Genetrons" developed by General Chemical research in the past 10 years are presently being produced commercially to serve the needs of the refrigeration, air conditioning, aerosol, and plastics industries.

These include "Genetron" 11 (trichloromonofluoromethane), "Genetron" 12 (dichlorodifluoromethane), "Genetron" 141 (monochlorodifluoromethane), and "Genetron" 265 (trifluorochloroethylene).

The three-story, L-shaped building provides over 55,000 sq. ft. of floor space for research activities.

Included are more than 30 laboratories of various types, a technical library, and engineering research offices, as well as a special section for work with radioactive substances, an extensive analytical suite with the most modern spectrographic, optical, and physical testing equipment, and an agricultural formulating and milling laboratory.

The new laboratory's activities will be coordinated with related phases of Allied Chemical's extensive central research program as well as with large-scale development and pilot plant research conducted at General Chemical's other laboratories in Baton Rouge, La., and at Marcus Hook, Pa. near Philadelphia.

In addition to the "Genetron" program, the laboratory will continue to devote a large part of its studies to product and process development of industrial chemicals.

Dr. J. H. Pearson, a member of the General Chemical research staff for the past 18 years, is director of the laboratory.

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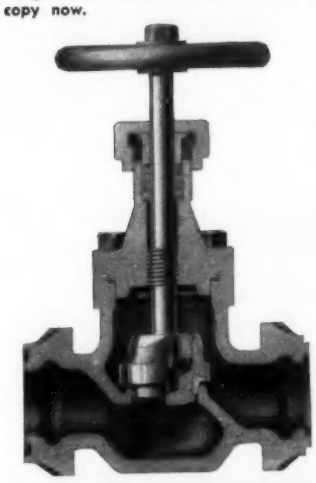

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Air Conditioning & Refrigeration Coil Manufacturer

Leading Midwest manufacturer of air conditioning and refrigeration coils needs an aggressive, experienced engineer under 35 years of age. Salary open. Excellent opportunity for advancement for proper man with a progressive company established over 40 years ago. Submit detailed summary of experience and education in first reply. All replies confidential. BOX A5039, Air Conditioning & Refrigeration News.

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POSITIONS WANTED

FACTORY REPRESENTATIVE—will establish California office in near future. Would like October appointment with any interested manufacturer. Have had nearly thirty years covering every phase of refrigeration. T. O. LESTER, 711 Alton Road, East Lansing, Michigan.

MANUFACTURER'S AGENT, with merchandising ability now covering Washington, D. C., Maryland, Delaware, and eastern Pennsylvania, seeks lines that require aggressive selling. BOX A5054, Air Conditioning & Refrigeration News.

MATURE PATENT Attorney, engineering and law degrees, wide experience in all phases of patent and trademark matters, particularly with refrigeration, air conditioning and ice making arts, presently employed in corporation patent department, desires position as manager or equivalent in corporation patent department. Salary range $15,000. BOX A5056, Air Conditioning & Refrigeration News.

MANUFACTURER'S DISTRICT or divisional sales manager with diversified experience in the field of packaged and room air conditioners. Experience includes: 1. Qualifying and establishing new distribution; 2. Training and developing distributor and dealer personnel. Engineering degree. Seeks opportunity which offers a challenge with incentive. BOX A5058, Air Conditioning & Refrigeration News.

SALES ENGINEER or sales administration—graduate engineer, master's degree in business administration. 5½ years' selling air conditioning and refrigeration equipment, mostly on contracting level. Lastly, branch sales manager for "low-side" equipment manufacturer—contacting jobbers, contractors, engineers, etc. Will travel, relocate. Age 33, married. BOX A5059, Air Conditioning & Refrigeration News.

GRADUATE ENGINEER, air conditioning and refrigeration, six years' diversified experience in commercial and industrial applications with freon and ammonia. Excellent background for contractor or consulting engineer. Seeks opportunity preferably in northern New Jersey, New York City area. For complete resume, please write BOX A5060, Air Conditioning & Refrigeration News.

ERECTION SUPERVISOR for air conditioning installations including freon compressor units, cooling towers, oil burners, pneumatic and electric controls. Good knowledge of design and draftsmanship. Many years experience in Latin America. Fluent Spanish. No objection to travel. British subject. BOX A5063, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

POSITION AS chief engineer now available with one of the largest commercial refrigeration manufacturers. Applicant should have complete knowledge and experience in high temperature and low temperature cabinet design testing and manufacture. This ad is with full knowledge of company personnel. Plant located in Massachusetts and salary is commensurate with experience and ability of applicant. Send request for interview to ACE CABINET CORP., 1457 Broadway, New York, New York.

WANTED EXPERIENCED refrigeration man for low temperature industrial refrigeration work on temperature and environmental test chambers. Prefer man experienced in ultra-low temperature, two and three-stage or cascade systems. Please advise in your first letter references, experience, and if you prefer shop work or outside work with some traveling. Yearly salary guaranteed. Replies confidential. CONRAD, INC., 141 Jefferson Street, Holland, Michigan.

MANUFACTURER'S REPRESENTATIVES wanted. Our sales program for 1955 provides for establishment of representatives in following territories: Virginia, North and South Carolina; Southern California and Arizona; Florida, Georgia and Alabama; Nebraska, Kansas, Missouri and Colorado. Complete line refrigerated display and storage fixtures, including latest design self-service models for supermarkets; also bakery refrigerators, and complete line institutional and restaurant refrigerators. Contact dealers, distributors and food chains. Give complete details as to experience and industry references in first letter. FEDERAL REFRIGERATOR MFG. CO., P.O. Box 558, Waukesha, Wisconsin.

ATTRACTIVE OPENINGS for engineers and designers. (1) Cabinet designers, experienced in basic development and layout; (2) Cabinet detailers; (3) Hermetic compressor designers including experienced designers and lay-out draftsmen; (4) Electrical designers for development of switches and allied electrical components; (5) Refrigeration engineers experienced in development of household systems. Unusual opportunities in expanding program. All replies confidential. Write to KELVINATOR, DIVISION OF AMERICAN MOTORS CORP., 14250 Plymouth Road, Detroit 32, Michigan, Attention Salaried personnel.

FIELD SERVICE engineer for north-central part of the United States, living in or near Chicago. Age 27 to 42, with 10 or more years' experience, preferably food store refrigeration. No installation or service responsibility. We are looking for a capable man who wants to lay down his tool box for a better opportunity. One of the largest manufacturers of food store equipment has an excellent opportunity for a man free to travel in a definite territory without family interference. Salary, expenses, insurance, etc. Also, we need a man for the southeastern states, to live in Atlanta, Georgia. Apply by letter, giving full particulars, with recent photograph. BOX A5044, Air Conditioning & Refrigeration News.

CHIEF ENGINEER for development and design of commercial and residential air conditioning equipment. Well established, AAA1, midwest air conditioning manufacturer accustomed to leadership in its field, desires the services of an engineer who has the experience of designing, engineering and developing 2, 3, 5 and 7½ H.P. packaged air conditioners, both air and water cooled. The man we are looking for has proven ability, can take charge of a complete development program, is familiar with field service and application problems, and with manufacturing techniques. He will have at his disposal testing laboratories, a staff of trained engineers, and the cooperation of aggressive management. Salary open. Our employees know of this ad. Reply in confidence to BOX A5057, Air Conditioning & Refrigeration News.

FIELD ENGINEER—Technical graduate, 25 to 30 years of age with experience in refrigeration and air conditioning to call on manufacturers, wholesalers, and contractors after extensive factory training program. Salary plus liberal bonus arrangement. Please give details of past training in first letter. Your application will be kept confidential. BOX A5061, Air Conditioning & Refrigeration News.

MANUFACTURERS' REPRESENTATIVES wanted to sell new 1955 line of quality forced draft cooling towers. A number of good territories available. Prices most competitive. State lines handled and give references. BOX A5062, Air Conditioning & Refrigeration News.

SALESMEN WANTED for southwest and middle central states territories. You will sell the most complete line of low and high temperature refrigeration equipment in the industry. Excellent products with high company reputation. We want experienced and high caliber salesmen who will be rewarded with most liberal commission arrangement in the field. Write ACE CABINET CORP., 1457 Broadway, New York, New York.

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FOR SALE: Brand New Popular Brand Supermatic -Hermetic Domes- ½ H.P. $40.00—¾ H.P. $42.50—1 H.P. $45.00. Complete with relay and capacitors. Model R 5 and 7½ H.P. Compressors $115.00. Details supplied on request. Send for refrigeration parts and supplies catalog listing many other sensational values. WALTER W. STARR REFRIGERATION, 2833 Lincoln Ave. Chicago 13, Illinois.

BUSINESS OPPORTUNITIES

COMMERCIAL REFRIGERATION and air conditioning business for sale. Largest of its type in city of over 100,000 population. Exclusive Frigidaire, C. V. Hill franchises. A highly profitable operation. Modern showroom, offices and warehouse can be bought or leased. Large service department. Owner retiring. BOX A5055, Air Conditioning & Refrigeration News.

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WANTED: WATER valves, Penn, Electromatic, expansion valves, controls, driers. We'll buy your new surplus stock—large or small lots. For sale: 50 new copper room coils-formed 1¼" O.D., 1" I.D., Dim: 2 x 3 feet each coil 30 feet-sealed, bargain. MILTON BECKER, 17-14 201 St., Bayside 60, New York.

SERVICEMEN—DEALERS: If it's sales you want, here's your answer. Norge replacement units low as $46.50 exchange f.o.b. Detroit. Coldspot and Tecumseh units remanufactured. Authorized factory repair station for room air conditioners. For full particulars, call or write MODERN REFRIGERATION COMPANY, 12541 E. McNichols, Detroit 5, Mich.

BOTHERED WITH handling problems on refrigerators and freezers? Better contact us for details on our new (1955 model) Dual Truck. Dept. R, ROLL-OR-KARI COMPANY, Zumbrota, Minn.

Locker Operators Discuss Food Plan--

(Concluded from Page 1, Col. 3)

plan representative in Dallas, Texas, had estimated that the dealer should make an average profit of $100 on the freezer, varying according to size of freezer sold and volume of sales).

Asked what he would do when his market was saturated with freezers, Stratman said that he did not foresee any such eventuality. He pointed out that freezer saturation is still very low. He noted that though refrigerator saturation is more than 90%, there are still millions sold every year. He said he expected to go on selling freezers indefinitely.

Lawson commented that not all appliance dealers have been successful in selling freezers and that locker operators are overlooking a good bet if they don't sell the freezer as well as the food.

WISE TO SELL FREEZERS?

John Trullinger, operator of the Johnny Quick Freeze locker plant in Portland, Ore., dissented from this opinion, even though he now sells freezers as well as food.

"I made the most money, had the most friends, and got the most repeat business when I worked with local appliance dealers. I took care of the food and they took care of the freezer. I've had the most headaches since I started to handle freezer sales myself."

The nature of some of the questions asked from the floor indicated that some locker operators at least would prefer to sell their food at a profit and leave the freezer selling to more merchandising minded organizations.

One locker operator commented privately that he supplied the food for several plans operated by appliance dealers in his town and would be willing to add others. But he was afraid that if he started selling freezers too, his dealer-customers might resent the competition and he would lose more than he would gain.

The locker operators were assured that the future of the freezer-food plan was bright. Lawson declared that he believed the food plan was here to stay. The outlook for food plan selling is better than ever and the freezer business has a long, long way to go, he asserted.

E. L. Hinchliff, sales manager of Amana Refrigeration, Inc., stated:

"Freezer-food plans have overcome their growing pains and now all over the country they are moving ahead on a firm basis. Locker plant operators, with their many years of pioneering experience in handling frozen food are in a natural position to play increasingly important roles in the growth of these plans."

More than half of the freezers sold in the United States today are being sold in conjunction with a food plan, or some kind of food service arrangement, Hinchliff said. "This means that more than 8.5 million new cubic feet of freezer storage space is being established in American homes each year by food plans. Certainly locker plants should be active in supplying these freezer needs," Amana's sales manager contended.

At another panel discussion, Bob Freeman of Worthington, Ind. said a survey he conducted in his territory indicated that 67% of rural families questioned are buying commercially frozen foods for their freezers. Only 10% said that they would not purchase commercially frozen foods.

Freeman declared that home freezer owners are good prospects for portion-controlled meats if the locker operator would sell them on this type of package. Portion-controlled meats are those that are pre-cut to standard size individual portions and separately wrapped. They find good acceptance in restaurants and hotels, he said. A 10-lb. box is the best average weight to work from, he added.

Other panelists told the locker operators that they will find good customers among home freezer owners for king size packages of commercially frozen foods and for meat "bundles" of less than quarter size.

The king size packs are very convenient for the housewife and she can be sold on this fact, it was said.

MEAT BUNDLES POPULAR

The meat bundles are bundles of choice cuts of meats, containing those items the customer wants and eliminating those he doesn't want. These can be all one type of meat, such as beef, or can be a variety of different types, such as veal and pork, in one package.

Advantages to the locker operator are that he can charge two to three cents per pound more than for sides or quarters and will attract new customers who cannot afford or do not want to buy a whole side at one time.

H. B. Ely of Flemington, N. J., said that this type of package is even attracting people who have only a large freezer compartment in their refrigerator.

PRICES SAME FOR LOCKER PATRONS, FREEZER OWNERS

A show of hands at a panel discussing pricing problems indicated that very few locker operators charge home freezer customers higher prices than they do their own locker customers.

Another show of hands indicated that the majority of operators charged between four and five cents a pound for meat processing, with the range running between three and six cents a pound. It was noted, however, that a broad variation in services is covered by these charges. What one operator might include in his processing charge, another would charge for separately.

Another panelist said that the three questions the locker operator should ask himself in setting prices are: Do they produce adequate revenue? Are they competitive? and What will the traffic bear?

He explained that by the third question, he meant that customers have no idea what food prices should be and are content to pay competitive prices. He felt that there was no need for the locker operator to sell at less than competitive prices, even though he might be able to do so, when it was not necessary to move his merchandise.

USING THE JUDGMENT OF SOLOMON, these locker operators refused to choose between these beauties and crowned all three. From left to right, Jim Batterbee of Beaumont, Texas crowns Kay Anderson "Miss Freezer Food Supplier"; John Boyles of Lumberton, N. C. does the honors for Marie Collins as "Miss Locker Plant"; and B. M. Anderson of Layton, Utah dubs Laura Holmes, who was Miss Missouri in 1953, as "Miss Frozen Food Center."

During the NFFLI's convention, the Certified Food Suppliers of America, an organization of "blue ribbon" locker operators within the institute, held its first membership meeting.

While the group's discussion was off the record, it was indicated that progress is being made in broadening the membership and that cooperative national advertising and merchandising plans are being formed.

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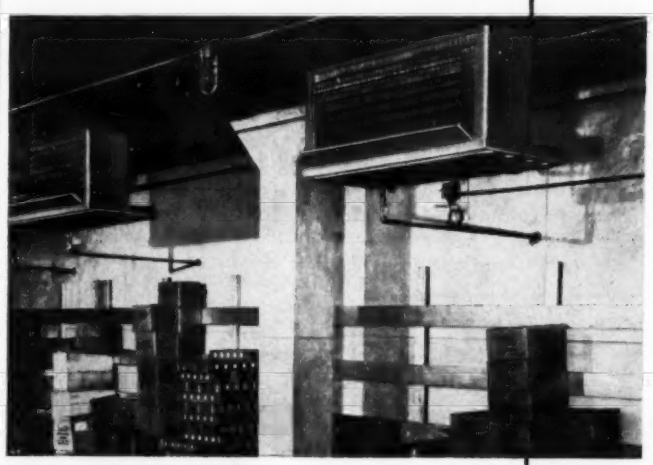

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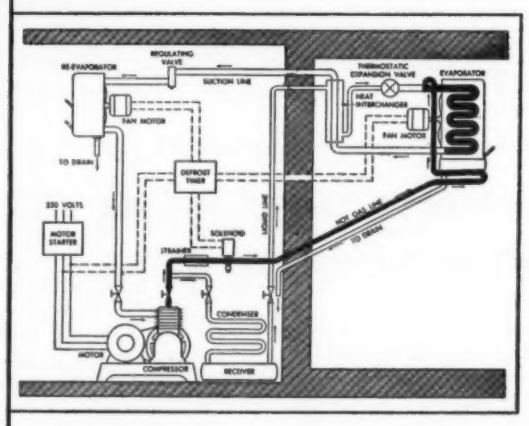

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